Environment Canada Environnement Canada

Sediment Data 90-06298/

Ontario

Données sur les sédiments

1988

INLAND WATERS DIRECTORATE
WATER RESOURCES BRANCH
WATER SURVEY OF CANADA
OTTAWA, CANADA, 1990

DIRECTION GÉNÉRALE DES EAUX INTÉRIEURES
DIRECTION DES RESSOURCES EN EAU
DIVISION DES RELEVÉS HYDROLOGIQUES DU CANADA
OTTAWA, CANADA, 1990

Published by authority of
the Minister of the Environment

Publié avec l'autorisation
du ministre de l'Environnement

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Cat. No. En36-410/2-1988

ISBN 0-662-57434-6

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N° de cat. En36-410/2-1988

ISBN 0-662-57434-6

PREFACE

This publication was prepared by personnel of the Sediment Survey Section, Water Survey of Canada Division, under the direction of the Director, Water Resources Branch, Department of the Environment, Ottawa.

The basic data were collected and compiled under the supervision of the Regional Chief of the Water Resources Branch at Guelph, Ontario.

The co-operation received from provincial agencies and from other organizations is gratefully acknowledged.

PRÉFACE

Le groupe d'étude des sédiments de la Division des relevés hydrologiques du Canada, sous l'autorité du directeur des Ressources en eau du ministère de l'Environnement, à Ottawa, a préparé la présente publication.

Le chef régional de la Direction des ressources en eau, à Guelph (Ontario), a supervisé la collecte et la compilation des données de base.

Nous remercions vivement les organismes provinciaux, ou autres, pour leur collaboration.

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INTRODUCTION

The Water Resources Branch of the Department of the Environment herein presents for the 1988 calendar year the annual suspended sediment data and a historical data summary for the sediment survey investigations conducted in Ontario by the Water Survey of Canada.

Data on the character and quantity of fluvial sediments provided by sediment survey investigations are intended for use in studies of water quality, environmental impacts, river processes and behaviour, and engineering design.

General introductory information on the sediment survey is included in this publication. Similar information for the associated hydrometric survey is given in the regular publications containing surface water data.

Details on individual stations and related records, as well as recent data that have not yet been published, may be obtained upon application to:

Water Resources Branch,
Department of the Environment,
Federal Building,
75 Farquhar Street,
Guelph, Ontario.
N1H 3N4
(519 821-0110)

or to the Water Resources Branch, Department of the Environment, Ottawa, Ontario, K1A 0H3 (819 997-2098).

INTRODUCTION

Dans la présente publication de la Direction des ressources en eau du ministère de l'Environnement, on trouvera les données annuelles sur les sédiments en suspension pour 1988 et le sommaire des données chronologiques sur les sédiments, à la suite des études effectuées dans les cours d'eau de l'Ontario par la Division des relevés hydrologiques du Canada.

Les données recueillies sur la nature et l'importance de la charge solide dans les cours d'eau doivent servir aux études portant sur la qualité des eaux, les incidences environnementales, les processus fluviaux, le comportement des cours d'eau et la conception de projets.

La presente publication contient des renseignements généraux préliminaires sur les études des sédiments. Des renseignements semblables sur les études hydrométriques connexes sont contenus dans les publications régulières présentant des données sur les eaux de surface.

On peut obtenir des renseignements supplémentaires sur les stations et les relevés, ainsi que des données récentes non encore publiées, en s'adressant au:

Direction des ressources en eau
Ministère de l'Environnement
Édifice fédéral
75, rue Farquhar
Guelph (Ontario)
N1H 3N4
(519 821-0110)

ou au Direction des ressources en eau, ministère de l'Environnement, Ottawa (Ontario), K1A 0H3 (819 997-2098).

SCOPE OF PUBLICATION

Descriptive information about sediment stations is given. This refers to the Location, Latitude and Longitude, Drainage Area and whether the flow is Natural Flow or Regulated Flow (the year that regulation began is given, if known), Type of Gauge and the Total Suspended Sediment Load in Tonnes for the Period of Record is also included. International Gauging Stations are identified and the names of co-operating agencies who supply data are given; unusual conditions at the sediment station that could affect the data results are explained under "Remarks".

This publication contains data on streamflow, instantaneous suspended sediment concentration; daily mean suspended sediment concentration; daily suspended sediment loads; dissolved solids concentration; load summary; particle-size distribution of suspended sediment in percent sand, silt and clay; bed load and bed material; water temperature when samples were collected; type of sampler and the single sampling vertical location.

A historical sediment data summary includes such information as Sampled Concentration Maximum and Minimum; Suspended Sediment Load Maximum Daily and the Total for Period. The Period of Record and the Type of Operation for each year of data are also given. A Summary for the Months of record gives the Period of Record Mean, the Mean for Period of Record and the Standard Error of Mean as a percent.

HISTORY AND OBJECTIVES OF SEDIMENT SURVEYS IN CANADA

In Canada, investigations of sediment transported by streams were first undertaken by individual organizations or agencies in 1948, to meet the needs of federal and provincial agencies for assessment of particular projects. Although the investigations were extended to meet expanding needs after 1948, it was not until 1961 that a systematic survey was undertaken by the Water Resources Branch.

The sediment survey program has the following objectives:

(1) Collection and provision of data related to sediment transport in Canadian rivers for applications in water resource engineering, water quality and environmental studies.

(2) Provision of information and advice related to sediment transport.

(3) Assessment, improvement and standardization of equipment and techniques used in Canada's sediment survey program.

PUBLICATION OF SEDIMENT DATA

Sediment data have been published in a variety of formats since the beginning of the Sediment Survey Program.

PORTÉE DE LA PUBLICATION

Des données descriptives sont présentées sur les stations d'étude des sédiments. Elles concernent leur emplacement, leurs latitude et longitude, leur bassin versant, la nature de débit (naturel ou régularisé, avec indication, le cas échéant, de l'année où la régularisation a commencé, si elle est connue), le type d'instrument de mesure employé et le débit total des sédiments en suspension (en tonnes) pour la période de relevé. Les stations internationales de jaugeage sont indiquées, ainsi que le nom des organismes qui fournissent les données. Des explications concernant des conditions exceptionnelles qui ont pu influer sur les résultats sont présentées dans la partie «Remarques».

Cette publication renferme des données sur le débit des cours d'eau, les concentrations instantanées de sédiments en suspension, les concentrations journalières moyennes de sédiments en suspension, les débits journaliers de sédiments en suspension, les concentrations de matières dissoutes, les débits solides totaux (résumés), la granulométrie des sédiments en suspension exprimée en pourcentage de sable, de limon et d'argile, le charriage et les matériaux du lit, la température de l'eau au moment de l'échantillonnage, le type d'échantillonneur employé et l'emplacement des verticales de prélèvement d'échantillons uniques.

Un résumé des données historiques sur les sédiments est inclus. On y trouve divers renseignements comme les concentrations maximale et minimale mesurées, le débit journalier maximal des sédiments en suspension et le total pour la période. La période de relevé et le type d'exploitation des stations sont indiqués pour chaque année. Dans un résumé pour les mois de relevé, on donne la moyenne pour chaque période et pour l'ensemble des périodes de relevé ainsi que l'erreur-type de la moyenne, en pourcentage.

HISTORIQUE ET OBJECTIFS DES ÉTUDES DES SÉDIMENTS AU CANADA

Au Canada, les études dans ce domaine ont débuté en 1948 en réponse aux besoins exprimés par certains organismes fédéraux et provinciaux pour l'évaluation de projets donnés et étaient le fait d'organismes privés. Bien que les études se soient poursuivies après 1948 pour satisfaire aux besoins accrus, ce n'est qu'en 1961 que la Direction des ressources en eau les a entreprises de façon systématique.

Les buts de ces études sont de:

(1) réunir et produire des données sur les transports solides dans les cours d'eau canadiens, données dont on peut avoir besoin pour des études concernant l'environnement, la qualité des eaux et la conception de projets portant sur les ressources en eau.

(2) produire des informations concernant les transports solides.

(3) évaluer, améliorer et uniformiser le matériel et les techniques employés dans le programme d'étude des sédiments au Canada.

PUBLICATION DES DONNÉES SUR LES SÉDIMENTS

Depuis le début du programme d'étude des sédiments, la présentation des données a varié.

During the years 1948 to 1960, some sediment data were collected for several Prairie rivers to meet the needs of particular projects. The first Water Resources Paper series containing sediment data incorporated a selection of these data and also data for part of the year ending September 30, 1961, at stations established for the continuing program. The second issue was a biennial publication covering only the continuing program for the 1962 and 1963 water years. All subsequent editions titled *Sediment Data Canadian Rivers* have been published annually. The sediment data since 1978 have been presented entirely in the International System of Units (SI).

Commencing with 1984, the *Sediment Data* were published in a new format wherein Canada was divided into eight regions. The provinces each represent a separate region except for New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island, which together form the Atlantic Provinces region, and the Yukon and Northwest Territories which make up another. The publications are identified by the province or territories covered and the year in which the data were collected. These data are published annually on a calendar-year basis and the stations are listed alphabetically.

A new edition, *Miscellaneous Sediment Data 1966 to 1983*, was published. It contains a tabulation of locations in Canada where miscellaneous data were collected but not previously published by the Water Survey of Canada. The following data are included in this one time publication: date and time of sample collection; instantaneous discharge or daily mean discharge; sampling vertical; instantaneous concentration; dissolved solids for some samples; type of sampler used; particle size distribution of suspended sediment in percent sand, silt and clay for some depth integrated samples and/or measurements, and some point integrated measurements; particle size distribution of bed load; particle size distribution of bed material; and the water temperature at time of sampling for some samples is also given where available.

The first edition of a *Sediment Data Reference Index* was published for data to 1972. It contains a tabulation of locations in Canada where sediment data were collected by the Water Survey of Canada. The index has been subdivided alphabetically by province or territory, with sediment survey stations also listed alphabetically. Commencing with the 1978 publication, data are presented in the International System of Units (SI) and will continue to be published biennially. The latest edition supersedes all previous editions because it contains any corrections or additions since the last publication.

The first edition of a new publication series titled *Historical Sediment Data Summary for Canadian Rivers* was produced for data to 1974. This publication contains a summary of historical monthly and annual mean suspended sediment load, and annual extremes of daily suspended sediment concentration and loads and total annual suspended load. Commencing with the 1978 publication, data are presented entirely in the International System of Units (SI). This publication has been discontinued, as much of the information is now included in the new annual *Sediment Data* publication.

De 1948 à 1960, on a recueilli des données pour plusieurs cours d'eau des Prairies en prévision de la réalisation de certains projets. La première publication contenant des données sur les sédiments a paru dans la série intitulée *Water Resources Paper*; elle présentait un choix de ces données ainsi que des données recueillies en 1961 avant le 30 septembre à des stations établies pour la réalisation du programme permanent. La deuxième publication a porté sur les données recueillies dans le cadre du programme au cours des années hydrologiques 1962 et 1963. Par la suite, les données ont été publiées annuellement sous le titre *Données sur les sédiments - rivières canadiennes*. Depuis 1978, les données sont exprimées en unités du Système international (SI).

En 1984, la présentation des *Données sur les sédiments* a été modifiée. Le Canada a été divisé en huit régions, une région pour chaque province, sauf le Nouveau-Brunswick, Terre-Neuve, la Nouvelle-Écosse et l'Île-du-Prince-Édouard qui, ensemble, forment la région des provinces de l'Atlantique, et les Territoires du Yukon et du Nord-Ouest, qui forment une autre région. Les publications sont nommées selon la région couverte et l'année des données (année civile). Ces publications sont annuelles. Les stations y sont présentées par ordre alphabétique.

Une édition récente intitulée *Données diverses sur les sédiments, 1966 à 1983* vient de paraître. On y présente sous forme de tableau les emplacements où des données diverses non encore publiées ont été recueillies au Canada par la Division des relevés hydrologiques. Cette première édition comprend des données telles que : la date et la durée de l'échantillonnage; le débit instantané ou débit journalier moyen; la verticale d'échantillonnage; les concentrations instantanées; les concentrations de matières solides en solution pour certains échantillons; le type d'échantillonneur employé; la granulométrie des sédiments en suspension en pourcentage de sable, de limon et d'argile, dans le cas de mesures avec intégration selon la profondeur ou d'échantillons intégrés sur toute la profondeur, et dans le cas de mesures par la méthode ponctuelle; la granulométrie du charriage; la granulométrie des matériaux du lit; la température de l'eau lors du prélèvement d'échantillons, lorsque celle-ci est connue.

Un *Index de référence des données sur les sédiments* est publié. La première édition portait sur les données disponibles jusqu'en 1972. Les emplacements où des données sur les sédiments ont été recueillies au Canada par la Division des relevés hydrologiques y sont présentés sous forme de tableau. L'*Index* est subdivisé selon l'ordre alphabétique par province ou territoire, et les stations de mesure des sédiments sont classées par ordre alphabétique. À partir de 1978, les données sont exprimées en unités du Système international (SI). L'*Index* est publié tous les deux ans; l'édition la plus récente annule toutes les éditions antérieures, car elle renferme toutes les corrections et mises à jour effectuées depuis la dernière parution.

Une autre série de publications a porté le titre *Sommaire chronologique des données sur les sédiments de rivières canadiennes*. La première édition renfermait les données disponibles jusqu'en 1974. Cette série présentait un résumé donnant les moyennes mensuelles et annuelles historiques du débit des sédiments en suspension, les valeurs annuelles extrêmes de la concentration journalière et du débit journalier des sédiments en suspension et le débit annuel total des sédiments en suspension. À partir de 1978, les données ont été présentées en unités du Système international (SI). Cette série a été abandonnée, car une bonne partie de l'information est maintenant contenue dans la nouvelle publication annuelle intitulée *Données sur les sédiments*.

COLLECTION AND PROCESSING OF BASIC DATA

1. *Equipment and Instrumentation*

The sediment survey program of the Water Resources Branch is conducted in cross sections on rivers selected specifically for the sediment survey or for the hydrometric survey. Certain cross sections are located at traffic bridges, while others are equipped with cableways, or automatic pump samplers.

The following sediment samplers have been used in the sediment survey program:

(a) Depth-integrating suspended sediment wading-type hand sampler, USDH-48, used on small streams or during winter periods.

(b) Depth-integrating suspended sediment sampler, USDH-59, used as a handline suspension for small and medium size streams.

(c) Depth-integrating suspended sediment samplers, USD-49, USD-74, and USD-77, used on a reel suspension for medium and large streams whose depths are less than five metres.

(d) Point-integrating suspended sediment samplers, USP-61, USP-61-A1, USP-63, and USP-72, used for point-integrating sampling, or depth-integrating sampling if the depth is over five metres, or in a cross section with velocities up to two metres per second.

(e) Automatic pump sampler is an automatic pumping system permitting unattended collecting and bottling of individual water samples pumped from a fixed point in a stream. This sampler is normally installed at isolated locations where otherwise no data would be available during ice break-up or peak periods.

(f) Bed material sampler, USBM-54, used on large or deep streams or on those streams with hard-packed streambeds.

(g) Bed material sampler, USBMH-60, used on some large or deep streams or on those streams with soft-packed streambeds.

(h) Bed material sampler, USBMH-53, used on some small or shallow streams.

(i) Lane bed material sampler, a drag-type sampler used on small streams or those with soft streambeds.

2. *Hydrometric Surveys*

The hydrometric survey includes the standard procedures for observations of water levels, streamflow measurements, water surface slope determinations if required, and observations of water temperature. The streamflow measurements are made in conjunction with the sediment load measurements and conform to the accepted standards of the regular hydrometric survey.

3. *Sediment Sampling Program*

The following is a summary of the elements associated with the Sediment Sampling Program:

(a) Periodic measurement of suspended sediment load by the

COLLECTE ET TRAITEMENT DES DONNÉES DE BASE

1. *Matériel*

L'étude des sédiments réalisée par la Direction des ressources en eau porte sur des sections transversales de cours d'eau choisis spécialement à cette fin ou pour les relevés hydrométriques. Certaines sections sont situées sous un pont, d'autres sont accessibles par téléphérique, ou sont étudiées à l'aide d'un échantillonneur sous pression.

On a utilisé les échantillonneurs suivants:

(a) L'échantillonneur intégrateur selon la profondeur, type simple, USDH-48, employé dans les cours d'eau peu profonds ou en hiver;

(b) L'échantillonneur intégrateur selon la profondeur USDH-59, utilisé comme une ligne dans les cours d'eau petits et moyens;

(c) Les échantillonneurs intégrateurs selon la profondeur USD-49, USD-74, et USD-77, fixés au bout d'une corde s'enroulant autour d'un moulinet et employés dans les cours d'eau gros ou moyens dont la profondeur est inférieure à cinq mètres;

(d) Les échantillonneurs intégrateurs USP-61, USP-61-A1, USP-63 et USP-72, employés ponctuellement ou sur toute la verticale, et utilisés lorsque la profondeur est supérieure à cinq mètres ou dans les sections transversales qui connaissent un débit qui atteint 2 m/s.

(e) Un échantillonneur automatique permettant le prélèvement en bouteilles, sans surveillance, d'échantillons uniques d'eau obtenus à l'aide d'une pompe en un point précis d'un cours d'eau; il est ordinairement installé dans un endroit isolé où aucune donnée ne pourrait être obtenue autrement au cours de la débâcle ou des périodes de débit de pointe;

(f) L'échantillonneur USBM-54 employé pour le prélèvement d'échantillons des matériaux du lit dans les cours d'eau importants ou profonds ou dans les cours d'eau dont le fond est dur;

(g) L'échantillonneur USBMH-60 employé pour le prélèvement d'échantillons des matériaux du lit dans certains cours d'eau importants ou profonds, ou dans les cours d'eau dont le fond est meuble;

(h) L'échantillonneur USBMH-53 employé pour le prélèvement d'échantillons des matériaux du lit dans certains cours d'eau petits ou peu profonds;

(i) La drague employée pour le prélèvement d'échantillons des matériaux du lit dans de petits cours d'eau ou dans des cours d'eau dont le fond est meuble.

2. *Relevés hydrométriques*

Le relevé hydrométrique comprend, entre autres, l'observation de la hauteur des eaux, la mesure du débit de l'eau, la détermination de la pente de la ligne d'eau, si nécessaire, ainsi que l'observation de la température de l'eau. Les mesures du débit de l'eau et du débit des sédiments se font conjointement, suivant les méthodes acceptées.

3. *Échantillonnage des sédiments des cours d'eau*

L'échantillonnage comporte, en gros, les éléments suivants:

(a) La mesure périodique du débit des sédiments en suspension par la méthode d'intégration sur toute la profondeur

depth-integrating method for determining the average suspended sediment concentration in the cross section.

(b) Single suspended sediment samples at a selected vertical for determining the sediment concentration for the days when suspended sediment load measurements are not taken.

(c) Limited measurement of suspended sediment load by the point-integrating method for checking depth-integrated measurements and for determining particle-size distribution in the cross section.

(d) Sampling of bed material for determining particle-size distribution.

(e) Periodic measurement of bed load.

The following is a brief explanation of the elements listed above:

(a) *Suspended Sediment Load by Depth-Integrating Method*: Measurements are made by the depth-integrating method to determine the suspended sediment load in the entire cross section of a stream, the average suspended sediment concentration in the cross section, and the size distribution of the sediment particles. It is known that the concentration of suspended sediment tends to increase from the water surface to the streambed and could vary from streambank to streambank.

When making suspended sediment equal-discharge-increment (EDI) measurements, the stream cross section is divided into at least five equal-flow panels and a representative suspended sediment sample is collected from each portion. For each panel of the cross section, the suspended sediment load (r) may then be computed by multiplying the flow (q) by the suspended sediment concentration (c):

$$r = q\ c$$

The suspended sediment load (R) for the cross section may be computed by adding the sediment loads for the five equal-flow panels:

$$R = r\ n = q_1c_1 + q_2c_2 + \ldots + q_nc_n$$

The depth-integrating method of sampling is used to measure the suspended sediment concentration. This method is based on the premise that the sampler fills at a rate proportional to the velocity of the approaching flow, and that by traversing the depth of a stream at a uniform speed, the sampler will receive a portion of water sediment mixture at every point in the vertical.

(b) *Single Suspended Sediment Samples at a Selected Vertical*: Single suspended sediment samples, consisting of two bottles each, are collected routinely using the depth or point-integrating samplers at a permanently fixed vertical in a cross section. During periods of very heavy sediment concentration, two or three single sediment samples may be taken per day, while during periods of low concentration, one single sediment sample may only be taken every few days. During extremely low flow periods, the sampling may be limited to one single sample in several weeks or months.

(c) *Suspended Sediment Load by Point-Integrating Method*: A limited number of suspended sediment load measurements are made by the point-integrating method. These measurements are included in the program (a) to check by comparison the "measured" sediment loads obtained by the depth-integrating method with the suspended sediment loads by the point-integrating method and (b) to obtain samples from which to determine particle-size distribution

pour la détermination de la concentration moyenne dans une section transversale;

(b) Le prélèvement d'échantillons uniques des sédiments en suspension selon une verticale choisie, afin de déterminer la concentration des sédiments les journées où le débit des sédiments en suspension n'est pas mesuré;

(c) Un nombre restreint de mesures du débit des sédiments en suspension avec intégration en un point précis d'un cours d'eau, afin de vérifier les résultats des mesures avec intégration selon la profondeur et afin de déterminer la granulométrie des particules de sédiments dans une section transversale d'un cours d'eau;

(d) L'échantillonnage des matériaux du lit afin d'en déterminer la granulométrie;

(e) La mesure périodique du charriage.

Voici une brève description des éléments susmentionnés.

(a) *Mesure du débit des sédiments en suspension par intégration selon la profondeur*: La méthode permet de déterminer le débit des sédiments en suspension traversant toute une section transversale d'un cours d'eau, la concentration moyenne des sédiments en suspension dans la section transversale et la granulométrie des sédiments en suspension. C'est un fait connu que la concentration des sédiments en suspension augmente généralement avec la profondeur et qu'elle peut varier d'une rive à l'autre d'un cours d'eau.

Avec la méthode d'incréments de débits égaux (IDE), la mesure du débit des sédiments en suspension se fait en divisant une section transversale d'un cours d'eau en au moins cinq tranches où le débit est égal et en prélevant un échantillon représentatif dans chacune d'elles. Le débit des sédiments en suspension (r) pour chaque tranche se calcule en multipliant le débit (q) par la concentration des sédiments en suspension (c):

$$r = q\ c$$

Le débit des sédiments en suspension (R) pour la section transversale est la somme des débits des sédiments des cinq tranches:

$$R = r\ n = q_1c_1 + q_2c_2 + \ldots + q_nc_n$$

La méthode par intégration sur toute la profondeur est employée pour mesurer la concentration des sédiments en suspension. Elle suppose que l'échantillonneur se remplit à un rythme proportionnel au débit de l'eau et qu'en étant déplacé à une vitesse uniforme sur toute la verticale, il reçoit une partie du mélange eau-sédiments à tous les points de celle-ci.

(b) *Prélèvement d'échantillons uniques de sédiments en suspension sur une verticale choisie*: De tels échantillons, constitués chacun de deux bouteilles, sont prélevés régulièrement à l'aide d'appareils intégrateurs, selon la profondeur ou ponctuels, sur une verticale permanente d'une section transversale. Lorsque la concentration des sédiments est très forte, deux ou trois échantillonnages peuvent être effectués chaque jour, alors qu'un seul échantillon peut être prélevé à quelques jours d'intervalle lorsqu'elle est faible. Au cours des périodes où le débit est extrêmement faible, l'échantillonnage peut être limité à un échantillon toutes les quelques semaine ou tous les quelques mois.

(c) *Mesure du débit des sédiments en suspension par la méthode ponctuelle*: Un nombre limité de mesures du débit des sédiments en suspension sont faites avec cette méthode. On y a recours a) pour vérifier les valeurs du débit mesurées au moyen de la méthode précédente et b) pour obtenir des échantillons en vue de déterminer la granulométrie des sédiments en divers points de la

at different points in the cross section. The point-integrating sediment loads are computed by graphical methods.

The relationship between the suspended sediment concentration of the single vertical samples and the average concentration in the cross section determined from the suspended sediment load measurements is established for some stations. Using this relationship, the sediment concentrations of the single vertical samples are adjusted to reflect the average suspended sediment concentration in the cross section. These average sediment concentrations in the cross sections are plotted, and a smooth curve is drawn through the points to obtain a concentration graph. This graph represents the average suspended sediment concentration for the period of record. The daily mean concentrations are determined by automated procedures using a digitizer interfaced with a Digital minicomputer.

The daily suspended sediment loads are computed on the basis of stream discharges and the collected suspended sediment concentrations. The daily suspended sediment loads are expressed in tonnes per day and are obtained by multiplying the daily mean sediment concentration (mg/L), by the daily mean discharge (m^3/s), and the conversion factor, 0.0864.

(d) *Bed Material Sampling*: In a cross section, bed material samples are usually taken in the same sampling verticals as the suspended sediment samples. Often, additional bed material samples are collected at the water edge, the extreme water level or at other points in the cross section. The total number of bed material samples taken in a cross section usually varies between five and nine.

(e) *Bed Load Measurement*: There are several methods available for measurement of bed load (volumetric method, measurement by samplers, method of tracers, method of constricted cross section, study of sound waves, etc.). The measurement methods should be selected in accordance with river regime.

4. *Total Sediment Load*

Sediment transport may be divided into two categories: sediment maintained in suspension in the stream (suspended load), and sediment being carried along the streambed (bed load). To measure the total sediment load, each of these must be measured separately and then totalled. The total sediment load was not computed for this publication.

5. *Sediment Survey Laboratories*

The Water Resources Branch maintain sediment survey laboratories in New Westminster, British Columbia; Regina, Saskatchewan; Guelph, Ontario; and Moncton, New Brunswick. The laboratories are equipped to perform the following analyses:

(a) determination of sediment concentration by (1) filtration method, (2) evaporation method and (3) determination of total dissolved solids by evaporation method.
(b) particle-size distribution analysis by (1) bottom withdrawal tube method, (2) sieving and (3) hydrometer method.

Determination of the sediment concentration by the evaporation method is carried out by evaporating the water from the settled sediment sample, with the results being corrected for dissolved solids. The quantity of dissolved solids is determined by evaporating a portion of the decanted water of a sample. In the filtration method, the suspended sediment concentration of water samples is determined by utilizing Gooch crucibles with a Reeve Angel 934AH filter and a Millipore AP20 prefilter and a vacuum system.

section transversale. Cette méthode fait appel à des graphiques pour le calcul du débit des sédiments.

Le rapport entre la concentration des sédiments en suspension dans les échantillons prélevés sur une seule verticale et la concentration moyenne dans la section transversale, telle que déterminée à partir des mesures du débit des sédiments en suspension, est établi pour quelques stations. Il permet de corriger les concentrations mesurées à une seule verticale de manière à donner la concentration moyenne dans la section transversale. Les concentrations moyennes ainsi déterminées sont reportées sur un graphique, et une courbe lisse passant par les points marqués est tracée. Le graphique obtenu représente la concentration moyenne des sédiments en suspension pour la période de relevé. Les concentrations moyennes quotidiennes sont déterminées automatiquement à l'aide d'un convertisseur analogique-numérique relié à un mini-ordinateur numérique.

Les valeurs journalières du débit des sédiments en suspension sont calculées à partir du débit du cours d'eau et des concentrations des sédiments en suspension recueillis. Elles sont exprimées en tonnes par jour. On les détermine en multipliant la concentration moyenne journalière des sédiments (mg/L) par le débit moyen journalier (m^3/s) et par un facteur de conversion approprié, 0.0864.

(d) *Échantillonnage des matériaux du lit*: Dans une section transversale, les échantillons des matériaux du lit sont ordinairement prélevés aux mêmes verticales que ceux des sédiments en suspension. Souvent, des échantillons supplémentaires sont pris près des rives, là où le niveau d'eau est extrême et à d'autres points de la section transversale. Leur nombre total pour une section donnée varie ordinairement entre cinq et neuf.

(e) *Mesure du charriage*: La mesure peut se faire par plusieurs méthodes (méthode volumétrique, mesure à l'aide d'échantillonneurs, méthode des traceurs, méthode de la section transversale rétrécie, étude des ondes sonores, etc.). Le choix se fondera sur la nature du régime du cours d'eau.

4. *Débit solide total*

Il y a deux catégories de sédiments: les sédiments maintenus en suspension au sein de l'eau (sédiments en suspension), et les sédiments charriés sur le lit d'un cours d'eau (charriage de fond). Les deux types de sédiments doivent être mesurés séparément et leurs valeurs additionnées si on veut mesurer le débit total des sédiments. Toutefois, on ne l'a pas calculé aux fins de la présente publication.

5. *Laboratoires d'analyse*

La Direction des ressources en eau possède des laboratoires d'analyse des sédiments à New Westminster (Colombie-Britannique), Regina (Saskatchewan), Guelph (Ontario) et Moncton (Nouveau-Brunswick). Les laboratoires disposent des appareils nécessaires pour effectuer les analyses suivantes:

(a) la détermination de la concentration des sédiments par (1) filtration, (2) évaporation, et (3) détermination des matières dissoutes totales par évaporation.
(b) l'analyse granulométrique (1) par extraction des sédiments déposés dans un tube, (2) par l'emploi de tamis et (3) par l'utilisation d'un hydromètre.

La méthode par évaporation consiste à faire évaporer l'eau d'un échantillon de sédiments décanté et à corriger les résultats pour tenir compte des matières dissoutes. La quantité de celles-ci est déterminée en faisant évaporer une partie de l'eau de l'échantillon décanté. Dans la méthode par filtration, on utilise sous vide des creusets de Gooch munis d'un filtre Reeve Angel 934AH et d'un préfiltre Millipore AP20.

Particle-size analysis was carried out for some suspended sediment samples having gross weights in the range of 0.15 to 5 g using the Bottom Withdrawal Tube method. The particle-size distribution of the Bottom Withdrawal Tube method ranges from 0.002 to 1.000 mm. The Sieve analysis method may be used for samples with a large amount of material coarser than 0.062 mm.

The particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)
Clay	0.000 24 - 0.004
Silt	0.004 - 0.062
Sand	0.062 - 2.0
Gravel	2.0 - 64.0

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analyzed in distilled water. Chemical dispersion is not used for native-water analysis.

6. *Accuracy and Reliability of Field Data and Computed Results*

The overall accuracy and degree of reliability of the sediment data is dependent upon many factors. Some of the more important of these are:

(a) accuracy and reliability of streamflow records;
(b) regime of the river;
(c) type of sampling equipment used to collect the suspended sediment samples;
(d) frequency of suspended sediment discharge measurements;
(e) frequency of individual sampling;
(f) quality of the relationship between the average suspended sediment concentration in the cross section and the concentration of the individual samples;
(g) frequency and method of bed material sampling;
(h) frequency and method of bed load measurements;
(i) accuracy and reliability of the laboratory analysis;
(j) selected methods of computation of the suspended sediment discharge;
(k) interpretation and extrapolation of sediment records.

An assessment of the quality of the records can be made by an examination of the occurrence of the symbol (S) on the daily mean concentrations.

In general, data collected during open-water periods are more reliable than those collected during periods of ice conditions or those records obtained by estimation. Further, water level data collected utilizing a water-stage recorder are more reliable and accurate than those using a manual gauge only, especially for small or flashy streams.

Une analyse granulométrique a été effectuée pour certains échantillons de sédiments en suspension ayant un poids brut dans l'intervalle de 0.15 à 5 g par la méthode de la burette (extraction des sédiments déposés, à divers intervalles). La distribution de la taille des particules déterminée par cette méthode varie de 0.002 à 1.000 mm. La méthode de tamisage peut être employée pour les échantillons ayant une forte quantité de particules de taille supérieure à 0.062 mm.

La classification granulométrique qui est utilisée dans la présente publication est conforme aux recommandations faites par l'*American Geophysical Union Subcommittee on Sediment Terminology*. La classification est la suivante:

Classification	Taille (mm)
Argile	0.000 24 - 0.004
Limon	0.004 - 0.062
Sable	0.062 - 2.0
Gravier	2.0 - 64.0

La répartition granulométrique qui est fournie dans cette publication, n'est pas obligatoirement représentative de toutes les particules qui sont transportées par un cours d'eau donné. La plupart des matières organiques sont extraites de l'échantillon qui est ensuite soumis à une dispersion mécanique et chimique avant d'être analysé dans de l'eau distillée. La dispersion chimique ne sert pas à l'analyse de l'eau naturelle.

6. *Exactitude des données et des résultats*

L'exactitude des données sur les sédiments dépend de nombreux facteurs. On peut citer, parmi les plus importants:

(a) l'exactitude des données sur les débits;
(b) le régime d'un cours d'eau;
(c) le type d'appareil d'échantillonnage utilisé pour prélever les échantillons de sédiments en suspension;
(d) la fréquence des mesures du débit des sédiments en suspension;
(e) la fréquence des échantillonnages isolés;
(f) la qualité du rapport entre la concentration moyenne des sédiments en suspension dans une section transversale et la concentration des échantillons isolés;
(g) la fréquence des échantillonnages des matériaux de fond et la méthode utilisée;
(h) la fréquence des mesures du charriage de fond et la méthode utilisée;
(i) l'exactitude des analyses de laboratoire;
(j) les méthodes de calcul du débit des sédiments en suspension;
(k) l'interprétation et l'extrapolation des données sur les sédiments.

La qualité des données peut être évaluée d'après la fréquence d'utilisation du symbole (S), avec les données sur la concentration journalière moyenne.

En général, les données recueillies au cours des périodes d'eau libre sont plus sûres que celles qui sont obtenues au cours des périodes de glaces ou par estimation. De plus, les données sur le niveau des eaux qui sont mesurées à l'aide d'un limnigraphe sont plus certaines et plus exactes que celles qui sont mesurées à l'aide d'une jauge manuelle seulement, surtout dans le cas des petits cours d'eau ou des cours d'eau à crues très rapides.

METHOD OF TABULATION OF SEDIMENT DATA

For stations where the suspended sediment load was obtained, the following data are given where available:

1. The table of *Suspended Sediment Load* includes the daily mean discharge in cubic metres per second, the daily mean concentration in milligrams per litre, and the daily suspended sediment load in tonnes per day. The total monthly discharge and total monthly sediment load are also given for each month of record.

For stations where the sediment load in tonnes per day are produced for complete or partial years, the *Total Suspended Load* for the period is given in the descriptive information.

For stations where only suspended sediment concentrations are obtained, the table of *Suspended Sediment Load* will not be given.

Additional descriptive information about the sediment station is also given and will indicate the following, where applicable.

Location – the latitude and longitude co-ordinates of the location of the gauge are given. For stations where the gauge is located an appreciable distance from the discharge measurement section, these co-ordinates give the location of the discharge measurement section.

Drainage area – refers to that area enclosed by a topographic divide such that direct surface runoff from precipitation would drain by gravity into the stream upstream from the location of the station.

Type of Flow – where the flow is known to be natural, this is indicated. The flow of water in many river systems is affected by upstream regulation. In some cases, the extent of this regulation is not known and therefore is not indicated. However, where the regulation is known to be "appreciable", this is indicated as well as the year that the regulation began, if known.

Type of Gauge – refers to the installation or method used to obtain water level or discharge data:

(a) Manual – a non-recording type of gauge from which observations of stage normally are obtained once daily.

(b) Recording – a water-stage recorder from which continuous water levels are obtained on an analog chart. For most International Gauging Stations located in the United States, water level records are obtained utilizing a digital recorder.

International Gauging Station – on waters adjacent to the international boundary, certain gauging stations have been

PRÉSENTATION DES TABLEAUX DE DONNÉES SUR LES SÉDIMENTS

Pour les stations de mesure du débit des sédiments en suspension, les données suivantes sont présentées, pour autant qu'elles sont disponibles:

1. Le tableau concernant le *débit des sédiments en suspension* (The table of Suspended Sediment Load) donne le débit journalier moyen de l'eau, en mètres cubes par seconde, la concentration journalière moyenne, en milligrammes par litre, et le débit journalier des sédiments en suspension, en tonnes par jour. Chaque mois les données indiquent également les débits mensuels totaux de l'eau et des sédiments.

Dans le cas des stations où le débit des sédiments, en tonnes par jour, est fourni pour une année complète ou une partie de l'année, le total pour la période est indiqué.

Dans le cas des stations où seule la concentration des sédiments en suspension est obtenue, ce tableau est absent.

Des renseignements descriptifs additionnels au sujet de la station sont également présentées. On peut y apporter les précisions suivantes:

Emplacement (Location) – La latitude et la longitude de la station de jaugeage sont indiquées. Dans les cas où l'équipement de mesure est situé à une bonne distance de la section où le jaugeage est effectué, on indique les coordonnées de cette section.

Superficie du bassin versant (Drainage area) – Désigne la zone délimitée par une ligne de faîte de sorte que l'écoulement de surface direct provenant des précipitations est entraîné par gravité vers le cours d'eau, en amont de la station.

Type de débit (Type of Flow) – Un débit reconnu comme naturel est indiqué. Le débit de nombreux réseaux hydrographiques est modifié par une régularisation effectuée en amont. Dans certains cas, l'importance de cette régularisation n'est pas connue, et elle n'est donc pas indiquée. Cependant, quand on sait que la régularisation est d'une certaine importance, on l'indique, ainsi que l'année où elle a débuté (si elle est connue).

Type de jauge (Type of Gauge) – Il s'agit des jauges ou des méthodes de jaugeage utilisées pour obtenir les données sur le niveau ou le débit d'un cours d'eau.

(a) *Manuel* (Manual) – Indique qu'un appareil non enregistreur est employé pour obtenir normalement une fois par jour les données sur le niveau et le débit du cours d'eau.
(b) *Enregistreuse* (Recording) – Indique qu'un limnigraphe permet de mesurer de façon continue le niveau des eaux qui est tracé sur un graphique. La plupart des stations internationales de jaugeage des États-Unis obtiennent les données sur le niveau des eaux à l'aide d'un enregistreur numérique.

Station internationale de jaugeage (International Gauging Station) – Dans les eaux contiguës aux frontières, on a

designated as "International" and records are approved jointly. Differences between figures published herein and corresponding figures in United States Water Supply Papers are due to variations in automated data processing techniques.

Contributed Data – if data were supplied in their entirety or partially by an outside agency, the name of this co-operating agency is given.

Remarks – contains a statement pertaining to the sediment sample collection.

2. The table of *Instantaneous Suspended Sediment Concentration* for depth-integrating samples includes the following: Date and Time of the sample collection; Water Temperature; Instantaneous Discharge at time of sampling, (if not available the daily mean discharge is given and indicated by a symbol); Single Sampling Vertical location; Dissolved Solids; Percent Sand, Silt and Clay; Type of Sampler used. The particle-size distribution in percent in millimetres and the percent Sand, Silt and Clay, is given where available.

The Single Sampling Vertical Location is defined by many symbols, which are as follows, where applicable:

DIGITS - 5, 14, 130, etc., is the distance in metres from the initial point
WERB - Water's Edge RIGHT Bank
WELB - Water's Edge LEFT Bank
1QRB - One-quarter the distance FROM the RIGHT Bank
3QRB - Three-quarters the distance FROM the RIGHT Bank
1QLB - One-quarter the distance FROM the LEFT Bank
3QLB - Three-quarters the distance FROM the LEFT Bank
MID - MID STREAM
MULT - Composite sediment measurement

For the suspended sediment measurements, the Date; Time; Water Temperature at time of sampling; Discharge computed for each sampling panel; Concentration; Sampling Vertical; Dissolved Solids; Percent Sand, Silt and Clay; Type of Sampler used; and the Particle-size distribution of the Sand, Silt and Clay, in percent is given where available.

3. The table of *Split Vertical Suspended Sediment* for depth-integrating samples includes the following: Date and Time of the sample collection; Water Temperature; Instantaneous Discharge at time of sampling, (if not available the daily mean discharge is given and indicated by a symbol); Sampling Vertical; Depth of Sample (giving the depth sampled from and the depth sampled to); Concentration of Sample, in milligrams per litre, Dissolved solids, in milligrams per litre; and the Particle-size distribution in percent in millimetres and the percent Sand, Silt and Clay are also given.

désigné certaines stations comme «internationales», et les données obtenues sont approuvées par les pays concernés. Les différences entre les chiffres publiés dans la présente publications et dans les *United States Water Supply Papers* sont dues à des variantes dans les techniques de traitement automatique des données.

Données fournies (Contributed Data) – Lorsqu'un organisme extérieur a fourni toutes les données ou une partie des données, son nom est indiqué.

Remarques (Remarks) – Renseignements au sujet du prélèvement des échantillons de sédiments.

2. Le tableau des *concentrations instantanées de sédiments en suspension* (The table of Instantaneous Suspended Sediment Concentration) pour les échantillons obtenus par intégration selon la profondeur comprend: la date et l'heure de prélèvement; la température de l'eau; son débit instantané au moment de l'échantillonnage (s'il n'est pas connu, le débit journalier moyen, avec symbole); l'emplacement de la verticale d'échantillonnage; la concentration des matières dissoutes; les pourcentages de sable, de limon et d'argile; le type d'échantillonneur employé; et la granulométrie du sable, du limon et de l'argile, en pourcentage en millimètres et le pourcentage des particules est donné lorsqu'il est disponible.

Le site vertical d'échantillonnage unique est défini par plusieurs symboles dont les suivants dans certains cas :

CHIFFRE - 5, 14, 130, etc., désigne la distance en mètres à partir du point initial
WERB - Bord de l'eau, rive DROITE
WELB - Bord de l'eau, rive GAUCHE
1QRB - Un quart de la distance À PARTIR de la rive DROITE
3QRB - Trois quarts de la distance À PARTIR de la rive DROITE
1QLB - Un quart de la distance À PARTIR de la rive GAUCHE
3QLB - Trois quarts de la distance À PARTIR de la rive GAUCHE
MID - MI-DÉBIT
MULT - Mesure des sédiments mixtes

Pour les mesures des sédiments en suspension, la date, l'heure, la température de l'eau au moment de l'échantillonnage, le débit calculé pour chaque tranche de la section d'échantillonnage, la concentration et la verticale d'échantillonnage, la concentration des matières dissoutes; les pourcentages de sable, de limon et d'argile; le type d'échantillonneur employé; et la granulométrie du sable, du limon et de l'argile, en pourcentage des particules est donnée lorsqu'elle est disponible.

3. Le tableau des *sédiments en suspension fractionnés pris à la verticale* (The Table of Split Vertical Suspended Sediment) pour les échantillons obtenus par intégration selon la profondeur comprend les éléments suivants : la date et l'heure de l'échantillonnage; la température de l'eau; le débit instantané au moment de l'échantillonnage (s'il n'est pas disponible, on donne le débit moyen quotidien et on l'indique par un symbole), la verticale d'échantillonnage; la profondeur (donner la profondeur à laquelle l'échantillon a été pris); et la profondeur à laquelle l'échantillon a été attributé la concentration des échantillons, en milligrammes par litre; la concentration des matières dissoutes, en milligrammes par litre; la distribution des sédiments de la taille de particules en pourcentage en millimètres; le pourcentage de sable, de limon et d'argile.

4. The table of *Point Integrating Particle-size of Suspended Sediment* includes the following: Date and Time of the sample collection; Water Temperature; Panel Discharge for each sampling vertical; Sampling Vertical; Depth of Sample; Concentration of Sample, in milligrams per litre; Dissolved Solids in milligrams per litre, and the Particle-size distribution in percent in millimetres and the percent Sand, Silt and Clay are also given.

5. The table of *Bed Load Particle-size* includes the following: Date and Time of the sample collection; Panel Discharge; Sampling Vertical and the Type of Sampler used in the collection of the sample and the Particle-size distribution, in percent in millimetres, for each sample of bed load collected.

6. The table of *Bed Material Particle-size* includes the following: Date and Time of the sample collection; Panel Discharge; Sampling Vertical and the Type of Sampler used in the collection of the sample and the Particle-size distribution, in percent in millimetres, for each sample of bed material collected.

7. The table of *Historical Sediment Data Summary* gives the following, for the period of record, where applicable.

   (a) Record Summary
   (b) Type of Sampling
   (c) Sampled Concentration, maximum and minimum
   (d) Suspended Sediment Load, maximum daily and the total, for the period, in tonnes
   (e) Summary, including mean load, the historical mean load and the standard error of the mean in percent.

(a) The *Record Summary* gives the months of record that data are available. If the complete month is on file the symbol (C) is shown, while partial months of data are indicated by the symbol (P). Months with no data on file are indicated by (-).

(b) The *Type of Sampling* indicates the type of sampling method used to collect the sediment samples during the period of operation. If the samples were collected by manual methods this is indicated by "MANUAL." If the samples were collected by a pump sampler or some other automatic method this is indicated by "AUTO." If both manual and automatic sampling methods were used this is indicated by "DUAL."

(c) The *Sampled Concentration* gives the maximum and minimum concentration, in milligrams per litre, and the date of collection for each year of record. The extreme recorded for the period of record is indicated by an asterisk (*). If more than one maximum or minimum, of the same value, occurred during the year only the date of the first occurrence is identified by the asterisk.

(d) The *Suspended Sediment Load* gives the maximum daily load, in tonnes, and the date of occurrence. The extreme recorded is indicated by an asterisk (*). The Total for the Period gives

4. Le tableau de la *granulométrie des échantillons ponctuels et intégrés des sédiments en suspension* (The table of Point Integrating Particle-size of Suspended Sediment) comprend: la date et l'heure de prélèvement de l'échantillon, la température de l'eau, le débit de la tranche de la section pour chaque verticale d'échantillonnage, la verticale d'échantillonnage, la profondeur de l'échantillon, la concentration des échantillons, en milligrammes par litre, la concentration des matières dissoutes, en milligrammes par litre, et granulométrie en millimètres et en pourcentage du sable, du limon et de l'argile.

5. Le tableau de la *granulométrie des sédiments charriés* (The table of Bed Load Particle-size) comprend: la date et l'heure de prélèvement de l'échantillon, le débit de la tranche de la section, la verticale d'échantillonnage et le type d'échantillonneur employé et le pourcentage en millimètres des particules pour chaque échantillon recueilli du charriage.

6. Le tableau de la *granulométrie des matériaux du lit* (The table of Bed Material Particle-size) comprend: la date et l'heure de prélèvement de l'échantillon, le débit de la tranche de la section, la verticale d'échantillonnage et le type d'échantillonneur employé et le pourcentage en millimètres des particules pour chaque échantillon recueilli.

7. Le tableau du *sommaire chronologique des données sur les sédiments* (The table of Historical Sediment Data Summary) donne, pour la période pour laquelle les données sont disponibles, les renseignements suivants lorsque de telles données existent:

   (a) Le sommaire du relevé
   (b) Le type d'échantillonnage
   (c) Les concentrations mesurées, maximum et minimum
   (d) Le débit des sédiments en suspension, maximum quotidien et le total pour la période en tonnes
   (e) Résumé, comprend le débit moyen, le débit moyen chronologique et l'erreur type de la moyenne en pourcentage.

(a) Le *sommaire du relevé* donne les mois de relevé pour lesquels les données sont disponibles. Le symbole (C) indique que les données sont disponibles pour tout le mois. Le symbole (P) indique que ces données ne sont disponibles que pour une partie du mois. Enfin, on indique par (-) les mois qui n'ont pas de données.

(b) Le *type d'échantillonnage* indique le type de méthode d'échantillonnage que l'on utilise dans le prélèvement des échantillons de sédiments pendant la période d'exploitation. Si le prélèvement des échantillons se fait par des méthodes manuelles, on indique «MANUEL». Si le prélèvement des échantillons se fait au moyen d'échantillonneur à pompe ou par quelque autre méthode automatique, on indique «AUTO». Si on utilise à la fois des méthodes d'échantillonnage manuelles et automatiques, on indique «DOUBLE».

(c) Pour les *concentrations mesurées* (Sampled Concentration), on donne la concentration maximale et la concentration minimale, en milligrammes par litre, et leur date d'obtention pour chaque année de relevé. La valeur extrême enregistrée est indiquée par un astérisque (*). Si la valeur du maximum ou du minimum a été mesurée plus d'une fois pendant l'année, on signale, par l'astérisque, seulement la date de la première mesure.

(d) Sous le *débit des sédiments en suspension* (Suspended Sediment Load), on donne le débit journalier maximal, en tonnes, et sa date de mesure. Le débit extrême enregistré est indiqué

the total load for the period or year, in tonnes. The extreme recorded is also indicated by an asterisk (*). If more than one maximum or minimum, of the same value, occurred during the year only the date of the first occurrence is identified by the asterisk. A load which has been revised since the previous publication is marked with the symbol (R) for Revision.

(e) The *Summary* gives the *Mean Load* and the *Historical Mean Load* in tonnes.

The *Standard Error of the Mean* % is calculated using the following equations:

$$SEM = \frac{S}{\bar{x}\sqrt{n}} \times 100\%$$

and

$$S = \sqrt{\frac{\Sigma (x - \bar{x})^2}{n - 1}}$$

where SEM is the Standard Error of the Mean.

- S is the Standard Deviation of the annual mean loads.
- x is the annual Mean Load variable.
- $\bar{x}$ is the Historical Mean Load or the arithmetic mean of the annual Mean Loads.
- n is the number of years for which there is an annual Mean Load.

For stations with only instantaneous samples, this table will not include the *Suspended Sediment Load* or the statistical information in the *Summary*.

DEFINITION OF TERMS

The following definitions are given to clarify the terms used in this publication:

Automatic pump sample is an individual water-sediment mixture pumped from a fixed point in a stream.

Bed load is that material moving in almost continuous contact with the streambed, being rolled or pushed along the bottom by the force of the water.

Bed material is the sediment mixture of which the streambed is composed.

Daily load is the suspended sediment load expressed in tonnes for a particular day. The daily load is obtained by multiplying the daily mean sediment concentration (mg/L) by the daily mean discharge (m^3/s) and the conversion factor, 0.0864.

Daily mean concentration is a time-weighted mean value and is computed from a manually constructed concentration curve. The mean concentration value may be determined arithmetically or graphically. The arithmetic mean is obtained either by (1) selecting values from the concentration graph that represents uniform intervals of time and taking the arithmetic average or by (2) selecting values from the graph that represent unequal intervals of time and weighing these values by the

par un astérisque (*). Le débit total pour la période ou pour l'année est indiqué. La valeur extrême est également signalée par un astérisque (*). Si la valeur du maximum ou du minimum a été mesurée plus d'une fois pendant l'année, on signale, par l'astérisque, seulement la date de la première mesure. La lettre R indique qu'une valeur du débit a été révisée depuis la dernière publication.

(e) Le *résumé* donne le *débit moyen* et le *débit moyen chronologique*, en tonnes.

L'*erreur-type de la moyenne* % (Standard Error of the Mean), est calculée à l'aide des équations suivantes:

$$SEM = \frac{S}{\bar{x}\sqrt{n}} \times 100\%$$

et

$$S = \sqrt{\frac{\Sigma (x - \bar{x})^2}{n - 1}}$$

où SEM est l'erreur type de la moyenne.

- S est l'écart type des débits moyens annuels.
- x est la variable du débit moyen annuel.
- $\bar{x}$ est le débit moyen chronologique ou la moyenne arithmétique des débits moyens annuels.
- n est le nombre d'années où il y a un débit moyen annuel.

Dans le cas des stations ne prélevant que des échantillons instantanés, ce tableau ne donnera pas le *débit des sédiments en suspension* ni les données statistiques du *résumé*.

DÉFINITION DES TERMES

Les définitions suivantes sont présentées afin de faciliter la compréhension des termes utilisés dans la présente publication:

Échantillonnage automatique à l'aide d'une pompe (Automatic pump sample): Prélèvement d'un mélange de sédiments et d'eau au moyen d'une pompe fonctionnant automatiquement, en un point précis d'un cours d'eau.

Charriage (Bed load): Matières roulées ou poussées sur le fond sous l'action de l'eau, mais restant en contact presque permanent avec le fond.

Matériau du lit (Bed material): Mélange de sédiments composant le lit d'un cours d'eau.

Débit journalier des sédiments en suspension (Daily load): Débit des sédiments en suspension exprimé en tonnes par jour, pour une journée donnée. On l'obtient en multipliant la concentration journalière moyenne des sédiments (mg/L) par le débit journalier moyen de l'eau (m^3/s) et le facteur de conversion 0.0864.

Concentration journalière moyenne (Daily mean concentration): Moyenne pondérée en fonction du temps, calculée à partir d'une courbe de la concentration établie manuellement. La valeur de la concentration moyenne peut être déterminée arithmétiquement ou graphiquement. Pour la déterminer arithmétiquement, on peut, soit choisir sur la courbe des valeurs représentant des intervalles uniformes de temps et faire la moyenne arithmétique, soit choisir sur cette courbe

time intervals represented by the concentrations. For graphical explanation refer to *Office Procedures for Sediment Data Computations* and for the automated graphical explanation refer to *Automated Hydrometric Computation Procedures*.

Depth-integrated sediment sample is a suspended sediment sample collected at a single vertical in a cross section in a sampler moving vertically at a constant transit rate and represents an average sample for that part of the depth ranging from the water surface to about nine centimetres above the streambed.

Instantaneous suspended sediment sample is a sample collected at a fixed vertical in a river cross section.

Measured suspended sediment discharge is the suspended sediment discharge that can be computed from stream discharge and the concentration of sediment determined from depth-integrated sediment samples.

Particle-size analysis is the process of determining the size distribution of particles in a sediment sample.

Point-integrated sediment sample is a sample of the water-sediment mixture taken over a specified period of time at a fixed point and depth in a river cross section.

Sediment is fragmental material which has been deposited, eroded or transported by a flowing stream.

Sediment hydrograph is a graph showing the variation of suspended sediment concentration or sediment discharge with respect to time.

Single sample is a sample taken at a selected permanent vertical in a cross section. Two bottles of water-sediment mixture make up each single sample.

Single sampling vertical is a selected permanent vertical in a cross section in which single suspended sediment samples are collected.

Suspended sediment is sediment that moves in suspension in water either as a colloid or through the influence of the upward component of turbulent currents.

Suspended sediment concentration is the ratio of the weight of dry solids in a water-sediment mixture to the volume of the mixture. The units of this ratio are "milligrams per litre" (mg/L).

Suspended sediment load is the quantity of suspended sediment transported through a cross section per unit of time.

des valeurs qui représentent des intervalles inégaux de temps et pondérer ces valeurs en fonction des intervalles de temps correspondants. En ce qui concerne les méthodes graphiques, consulter *Méthodes de bureau pour les calculs de données sur les sédiments* et, pour la méthode automatisée, *Automated Hydrometric Computation Procedures*.

Écbantillon intégré sur toute la profondeur (Depth integrated sediment sample): Échantillon des sédiments en suspension prélevé sur une verticale précise d'une section transversale d'un cours d'eau à l'aide d'un échantillonneur se déplaçant verticalement à une vitesse constante; il représente un échantillon moyen des matières en suspension entre la surface de l'eau et environ 9 cm du fond.

Écbantillon instantané de sédiments en suspension (Instantaneous suspended sediment sample): Échantillon prélevé à une verticale précise d'une section transversale d'un cours d'eau.

Débit mesuré des sédiments en suspension (Measured suspended sediment discharge): Débit des sédiments en suspension qui peut être calculé à partir du débit du cours d'eau et de la concentration des sédiments déterminée à partir d'échantillons intégrés sur toute la profondeur.

Analyse granulométrique (Particle-size analysis): Détermination de la répartition de la taille des particules dans un échantillon de sédiments.

Écbantillon ponctuel et intégré (Point-integrated sediment sample): Échantillon constitué d'un mélange d'eau et de sédiments, prélevé au cours d'une période de temps donnée en un point précis d'une section transversale d'un cours d'eau et à une profondeur donnée.

Sédiments (Sediment): Matières fragmentaires qui ont été déposées, érodées ou transportées par un cours d'eau.

Hydrogramme des sédiments (Sediment hydrograph): Graphique représentant la variation de la concentration des sédiments en suspension ou du débit des sédiments en fonction du temps.

Écbantillon unique (Single sample): Échantillon prélevé sur une verticale permanente particulière dans une section transversale. Deux bouteilles du mélange eau-sédiments constituent un seul échantillon.

Verticale d'échantillonnage unique (Single sampling vertical): Verticale permanente d'une section transversale où des échantillons uniques de sédiments en suspension sont prélevés.

Sédiments en suspension (Suspended sediment): Matériaux qui se déplacent au sein de l'eau, soit sous forme colloïdale, soit sous l'influence des forces ascendantes des courants turbulents.

Concentration des sédiments en suspension (Suspended sediment concentration): Rapport entre le poids des matières solides sèches contenues dans un mélange eau-sédiments et le volume du mélange. Les unités employées sont les «milligrammes par litre» (mg/L).

Débit des sédiments en suspension (Suspended sediment load): Quantité de sédiments en suspension transportés par unité de temps à travers une section transversale d'un cours d'eau.

Total sediment load is the sum of the suspended sediment load and the bed load.

Unmeasured sediment load is the difference between total sediment load and measured suspended sediment load.

DEFINITION OF SYMBOLS

Symbols are located at the bottom of the data sets under the headings Time, Discharge, Concentration, and Dissolved Solids. The symbols with their definitions are listed below.

Time Symbol

E – *Estimated* – indicates estimated data. It indicates that the time of sample collection is estimated by some indirect method or comparison with other stream data.

Discharge Symbol(s)

A – *Manual Gauge* – indicates that one or more manual gauge observations per day were obtained and used as the mean for the day for a gauging station equipped with a recording gauge. This symbol is used during open-water periods only.

B – *Ice Conditions* – indicates the presence of ice at the gauging station. For gauging stations where discharge data are obtained, this symbol indicates that the presence of ice has affected the stage-discharge relationship.

E – *Estimated* – indicates estimated data. It indicates that the values recorded are estimated by some indirect method such as interpolation, extrapolation, comparison with other streams or by comparison with meteorological data.

H – *Daily Mean Discharge* – is the mean discharge for a particular day, usually referred to as the "daily mean discharge".

V – *Daily Mean; Manual Gauge* – is the mean discharge for a particular day and indicates that one or more manual gauge observations per day were obtained and used as the mean for the day.

W – *Daily Mean; Ice Conditions* – is the mean discharge for a particular day and indicates that the presence of ice has affected the stage-discharge relationship.

Y – *Daily Mean; Estimated* – is the mean discharge for a particular day and indicates that the value has been estimated by some indirect method.

Concentration Symbol(s)

C – *Coarse Material Present* – indicates that during the laboratory analysis coarse material (sand) was observed in the sediment sample.

Débit total des sédiments (Total sediment load): Somme du débit des sédiments en suspension et du débit charrié.

Débit non mesuré des sédiments (Unmeasured sediment load): Différence entre le débit total des sédiments et le débit mesuré des sédiments en suspension.

DÉFINITION DES SYMBOLES

Les symboles figurent au bas des séries de données et sont traités sous les rubriques Temps, Débit, Concentration, Matières solides en solution. Ces symboles avec leurs définitions sont donnés dans la liste ci-après.

Symbole du temps :

E – *Estimative* – Indique des données estimatives, c'est-à-dire que l'heure de prélèvement de l'échantillon est évaluée de façon indirecte ou par comparaison avec d'autres données sur les cours d'eau.

Symbole(s) du débit :

A – *Turbidisonde simple* – Indique qu'on a effectué à une station de jaugeage dotée d'une turbidisonde enregistreuse au moins une observation par jour à l'aide d'une turbidisonde simple et qu'on s'en est servi comme moyenne pour la journée en question. Le symbole n'est employé qu'au cours des périodes d'eau libre.

B – *Glaces* – Indique la présence de glaces à la station de jaugeage, qui ont faussé la relation hauteur-débit.

E – *Estimative* – Indique des données estimatives, c'est-à-dire que les valeurs enregistrées sont évaluées de façon indirecte, par exemple par interpolation, extrapolation, ou par comparaison avec d'autres cours d'eau ou avec des données météorologiques.

H – *Débit journalier moyen* – Débit moyen pour une journée donnée, ordinairement appelé «débit journalier moyen».

V – *Débit journalier moyen; turbidisonde simple* – Débit moyen pour une journée donnée; indique qu'on a effectué au moins une observation par jour et qu'on s'en est servi comme moyenne pour la journée en question.

W – *Débit journalier moyen; glaces* – Débit moyen pour une journée donnée; indique que la présence de glaces a faussé la relation hauteur-débit.

Y – *Débit journalier moyen; estimative* – Débit moyen pour une journée donnée; indique que la valeur a été évaluée de façon indirecte.

Symbole(s) de la concentration :

C – *Sable grossier présent* – Indique qu'au cours de l'analyse en laboratoire on a observé du sable grossier dans un échantillon de sédiments.

F – Sample Bottle Filled – indicates that during the laboratory analysis it was observed that the sample bottle had been filled to capacity.

G – Organic Material Present – indicates that during the laboratory analysis it was observed that organic material was collected in the sample bottle.

Single Vertical Symbol(s)

K – Sampling vertical not at the regular single vertical from LEFT bank – indicates that a sample was collected at a location from the left bank, in a cross-section, which is not at the regular single vertical.

L – Sediment measurement vertical not at the regular measurement cross-section from LEFT bank – indicates that the measurement sampling verticals were established from the left bank, in a cross-section which is not the regular measurement cross-section.

M – Sediment measurement vertical – indicates that the sampling vertical is one of several, usually five, and represents a panel width. The instantaneous discharge represents the flow for a panel width.

X – Sampling vertical not at the regular single vertical – indicates that a sample was collected at a location, in a cross-section, which is not at the regular single vertical. The location of the regular single vertical is given at the bottom of the Instantaneous Suspended Sediment data.

Z – Sediment measurement vertical not at the regular measurement cross-section – indicates that a suspended sediment measurement was collected in a cross-section which is not the regular measurement corss-section.

Note: If no symbol is present the samples have then been collected at the regular Single Vertical.

MICROFICHE

Sediment data to 1983 are available on microfiche, upon request. The data are stored in station number order by province. There are 270 frames per microfiche at 48X reduction; there is a visible heading showing the fiche number, type of data, province, beginning and ending station number and year of data, and the month/year the fiche was created. The last frame is an index of the contents of that fiche.

F – Flacon d'échantillonnage rempli – Indique qu'au cours de l'analyse en laboratoire on a observé que le flacon d'échantillonnage avait été complètement rempli.

G – Substance organique présente – Indique qu'au cours de l'analyse en laboratoire on a observé qu'une substance organique a été prélevée dans le flacon d'échantillonnage.

Symbole(s) de la verticale unique :

K – Verticale d'échantillonnage à l'extérieur de la verticale unique habituelle à partir de la rive GAUCHE – Indique qu'un échantillon a été prélevé à un endroit à partir de la rive gauche, dans une section transversale, mais à l'extérieur de la verticale unique habituelle.

L – Verticale de mesure des sédiments, à l'extérieur de la section transversale de mesure habituelle à partir de la rive GAUCHE – Indique que les verticales de mesure d'échantillonnage ont été établies à partir de la rive gauche, dans un section transversale à l'extérieur de la section transversale de mesure habituelle.

M – Verticale de mesure des sédiments – Indique que la verticale d'échantillonnage est l'une de plusieurs verticales, en général cinq, et qu'elle représente la dimension d'une tranche. Le débit instantané représente le débit relatif à la dimension d'une tranche.

X – Verticale d'échantillonnage à l'extérieur de la verticale unique habituelle – Indique qu'un échantillon a été prélevé à un endroit, dans une section transversale, mais à l'extérieur de la verticale unique habituelle. L'endroit de la verticale unique habituelle est donné à la fin des données sur les sédiments en suspension instantanés.

Z – Verticale de mesure des sédiments, à l'extérieur de la section transversale de mesure habituelle – Indique qu'une mesure de sédiments en suspension a été prise dans une section transversale à l'extérieur de la section transversale de mesure habituelle.

Note : S'il n'y a pas de symbole, cela indique que les échantillons ont été prélevés à la verticale unique habituelle.

MICROFICHE

Les données jusqu'à 1983 sur les sédiments sont disponibles sur microfiche. Ces données sont emmagasinées par ordre de numéro de station et par province. Chaque microfiche renferme 270 pages réduites de 48X. L'en-tête indique le numéro de la fiche, le genre de données, la province, le numéro de la première et de la dernière station, la première et la dernière année des données ainsi que le mois et l'année de création de la fiche. La dernière image donne l'index de la fiche.

EQUIVALENTS OF MEASURE

The following list of convenient equivalents of measure includes the relationship between imperial units and the International System of Units (SI).

1 inch equals 2.54 cm (centimetres)
1 foot equals 0.3048 m (metre)
1 statute mile equals 1.6093 km (kilometres)

1 cm (centimetre) equals 0.393 70 inch
1 m (metre) equals 3.2808 feet
1 km (kilometre) equals 0.621 37 mile

1 acre equals 43 560 square feet
1 acre equals 0.404 69 ha (hectare)
1 square mile equals 640 acres
1 square mile equals 2.5900 km^2 (square kilometres)
1 square mile equals 259.0 ha (hectares)

1 ha (hectare) equals 10 000 m^2 (square metres)
1 ha (hectare) equals 2.4710 acres
1 km^2 (square kilometre) equals 0.386 10 square mile

1 cubic foot equals 6.2288 imperial gallons
1 imperial gallon equals 4.546 09 L (litres)
1 imperial gallon equals 1.2010 U.S. gallons
1 U.S. gallon equals 0.133 68 cubic foot
1 cubic foot equals 0.028 317 m^3 (cubic metre)
1 m^3 (cubic metre) equals 35.315 cubic feet
1 dam^3 (cubic decametre) equals 1000 m^3 (cubic metres)
1 dam^3 (cubic decametre) equals 1 mm (millimetre) over 1 km^2 (square kilometre)

1 cubic foot per second for one day equals 1.9835 acre-feet
1 cubic foot per second for one day covers one square mile to a depth of 0.037 19 inch
1 acre-foot equals 1.2335 dam^3 (cubic decametres)
1 m^3/s (cubic metre per second) for one day equals 86.4 dam^3 (cubic decametre)
1 m^3/s (cubic metre per second) for one day covers one square kilometre to a depth of 0.0864 m (metre)

1 foot per second equals 0.6818 mile per hour
1 mile per hour equals 1.467 feet per second
1 m/s (metre per second) equals 3.6 km/h (kilometre per hour)
1 km/h (kilometre per hour) equals 0.2778 m/s (metre per second)

1 cubic foot per second equals 0.028 317 m^3/s (cubic metre per second)
1 m^3/s (cubic metre per second) equals 35.315 cubic feet per second

1 pound equals 0.453 59 kg (kilogram)
1 kg (kilogram) equals 2.2046 pounds

1 short ton (2000 pounds) equals 0.907 18 t (tonne)
1 t (tonne) equals 2204.6 pounds

degrees Celsius = 5/9 (degrees Fahrenheit − 32)
degrees Fahrenheit = 9/5 (degrees Celsius) + 32

ÉQUIVALENCES DES UNITÉS DE MESURE

Voici une liste des unités de mesure impériales et leurs équivalences dans le Système international d'unités (SI).

1 pouce vaut 2.54 cm (centimètres)
1 pied vaut 0.3048 m (mètre)
1 mille terrestre vaut 1.6093 km (kilomètre)

1 cm (centimètre) vaut 0.393 70 pouce
1 m (mètre) vaut 3.2808 pieds
1 km (kilomètre) vaut 0.621 37 mille

1 acre vaut 43 560 pieds carrés
1 acre vaut 0.404 69 ha (hectare)
1 mille carré vaut 640 acres
1 mille carré vaut 2.5900 km^2 (kilomètres carrés)
1 mille carré vaut 259.0 ha (hectares)

1 ha (hectare) vaut 10 000 m^2 (mètres carrés)
1 ha (hectare) vaut 2.4710 acres
1 km^2 (kilomètre carré) vaut 0.386 10 mille carré

1 pied cube vaut 6.2288 gallons impérials
1 gallon impérial vaut 4.546 09 L (litres)
1 gallon impérial vaut 1.2010 gallon américain
1 gallon américain vaut 0.133 68 pied cube
1 pied cube vaut 0.028 317 m^3 (mètre cube)
1 m^3 (mètre cube) vaut 35.315 pieds cubes
1 dam^3 (décamètre cube) vaut 1000 m^3 (mètres cubes)
1 dam^3 (décamètre cube) vaut 1 mm (millimètre) qui couvre 1 km^2 (kilomètre carré)

1 pied cube par seconde pendant un jour vaut 1.9835 acre-pied
1 pied cube par seconde pendant un jour couvre un volume d'un mille carré par 0.037 19 pouce
1 acre-pied vaut 1.2335 dam^3 (décamètre cube)
1 m^3/s (mètre cube par seconde) pour un jour vaut 86.4 dam^3 (décamètres cubes)
1 m^3/s (mètre cube par seconde) pour un jour couvre un kilomètre carré à une profondeur de 0.0864 m (mètre)

1 pied par seconde vaut 0.6818 mille par heure
1 mille par heure vaut 1.467 pied par seconde
1 m/s (mètre par seconde) vaut 3.6 km/h (kilomètres par heure)
1 km/h (kilomètre par heure) vaut 0.2778 m/s (mètre par seconde)

1 pied cube par seconde vaut 0.028 317 m^3/s (mètre cube par seconde)
1 m^3/s (mètre cube par seconde) vaut 35.315 pieds cubes par seconde

1 livre vaut 0.453 59 kg (kilogramme)
1 kg (kilogramme) vaut 2.2046 livres

1 tonne courte (2000 livres) vaut 0.907 18 t (tonne)
1 t (tonne) vaut 2204.6 livres

degrés Celsius = 5/9 (degrés Fahrenheit − 32)
degrés Fahrenheit = 9/5 (degrés Celsius) + 32

CO-OPERATION AND ACKNOWLEDGMENTS

Co-operative undertakings with other agencies form an important part of the activities of the Water Survey of Canada. Close co-operation has been maintained with public agencies and private organizations concerned with water resources. Data have been mutually exchanged and suspended sediment collection operations have been facilitated by the assistance received from a number of organizations.

On waters adjacent to the International Boundary, certain sediment stations are maintained by Canada (or the United States) under agreement with the United States (or Canada) and the records are collected and compiled in a manner equally acceptable to both countries. These stations are designated as "International Gauging Stations" in this publication.

For the valuable assistance and co-operation received in obtaining sediment survey records, the Water Survey of Canada is indebted to other federal and provincial organizations which are noted as contributing agencies in the summary for the year. A list of these agencies may be found in the *Sediment Data Reference Index*.

COOPÉRATION ET REMERCIEMENTS

Le travail entrepris en coopération avec d'autres organismes représente une partie importante des activités de la Division des relevés hydrologiques du Canada. On a maintenu une étroite collaboration avec les organismes, publics ou privés, qui s'intéressent aux ressources en eau. On a échangé des données sur les sédiments, et l'assistance fournie par certains organismes a facilité les opérations d'échantillonnage des sédiments en suspension.

Dans les eaux adjacentes à la frontière internationale, les stations dépendent du Canada ou des États-Unis selon l'accord intervenu entre les deux pays, et les relevés sont faits et compilés de façon à satisfaire les deux pays. Ces stations sont nommées «Stations internationales de jaugeage» dans la présente publication.

La Division des relevés hydrologiques du Canada est redevable à plusieurs organismes fédéraux et provinciaux, dont les noms apparaissent dans le sommaire de l'année, de l'aide et de la collaboration qu'ils lui ont apportées pour l'obtention des données sur les sédiments. On trouvera également les noms des organismes qui ont fourni des données dans l'*Index de référence des données sur les sédiments*.

REVISIONS

A number of corrections or revisions have been made to previously published data. Many of these were required because of typographical or computational errors which were exposed when the data were stored on magnetic tape and monthly means were re-calculated by computer. Other errors were discovered or different interpretations of basic data were made during the systematic review of historical streamflow data.

Revisions to daily discharges or sediment data are not published at present. However, those stations where a systematic review has been conducted are identified in the Surface Water Data Reference Index publication. The Historical Streamflow Summary publications contain revisions to monthly and annual mean discharges, and annual extremes of discharge. Revisions, corrections or additions made to discharges and sediment after January 1, 1980, are indicated by an "R" symbol in the data summaries. Detailed information on revisions to historical data is available from the appropriate Regional Chief.

RÉVISIONS

On a corrigé ou révisé des données déjà publiées. Il a été nécessaire d'effectuer plusieurs corrections, car on a relevé des erreurs typographiques ou de calcul lorsqu'on a enregistré les données sur rubans magnétiques et qu'on a recalculé les moyennes mensuelles à l'aide d'un ordinateur. On a aussi relevé d'autres erreurs ou fait des interprétations différentes de certaines données de base au cours de la révision systématique des données historiques sur le débit.

Les corrections apportées aux débits journaliers ou aux données sur les sédiments ne sont pas publiées, du moins pour le moment. Cependant, les stations où on a effectué une révision systématique sont indiquées dans l'*Index de référence des données sur les eaux de surface*. Les publications intitulées *Sommaire chronologique de l'écoulement* contiennent des données révisées sur les débits mensuels et annuels moyens et les extrêmes annuels du débit. Les révisions, corrections ou ajouts apportés aux données sur les débits et sur les sédiments après le 1er janvier 1980 sont indiqués par la lettre R dans les résumés des données. On peut obtenir plus de détails sur les révisions en s'adressant au chef régional concerné.

ABITIBI RIVER AT ONAKAWANA - STATION NO. 04HE003

LOCATION: LAT 50 38 00 N LONG 081 28 00 W
DRAINAGE AREA: 27 600 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: MANUAL

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 16	09:30		1840	231	D49	139	126														
AUG 18	11:00		1700	198 X	D49	141	285														

NOTE : SINGLE VERTICAL LOCATED AT 231 METRES FOR 1988

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

ABITIBI RIVER AT ONAKAWANA - STATION NO. 04HE003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1978	------P-----	MANUAL	48 JUL 27	48 JUL 27	--- ---	---	---	---	---
1983	----P--P-P--	MANUAL	130 MAY 16	4 AUG 04 *	--- ---	---	---	---	---
1986	----P-P-----	MANUAL	81 MAY 7	48 JUL 9	--- ---	---	---	---	---
1987	---P------P-	MANUAL	128 APR 30	84 NOV 11	--- ---	---	---	---	---
1988	----P--P----	MANUAL	141 AUG 18 *	139 MAY 16	--- ---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ATTAWAPISKAT RIVER BELOW MUKETEI RIVER - STATION NO. 04FC001

LOCATION: LAT 53 05 30 N LONG 085 00 30 W
DRAINAGE AREA: 36 000 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 12	14:00	8.0	528	300	D49	64 E	237														
JUL 30	17:00	20.0	384	300	D49	83 E	1450														

NOTE : SINGLE VERTICAL LOCATED AT 300 METRES FOR 1988

CONCENTRATION SYMBOL(S): E - ORGANIC MATERIAL PRESENT

ONTARIO

ATTAWAPISKAT RIVER BELOW MUKETEI RIVER - STATION NO. 04FC001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1975	----PPPP----	MANUAL	20 JUL 05		7 AUG 23		---	---	---	---	---	---
1976	----P-------	MANUAL	11 MAY 30		11 MAY 30		---	---	---	---	---	---
1977	-----P------	MANUAL	10 JUN 04		10 JUN 04		---	---	---	---	---	---
1980	--------P----	MANUAL	80 AUG 13		80 AUG 13		---	---	---	---	---	---
1981	---------P---	MANUAL	70 SEP 30		70 SEP 30		---	---	---	---	---	---
1982	----P----P--	MANUAL	89 MAY 17		7 OCT 18		---	---	---	---	---	---
1983	----P--P-P--	MANUAL	31 OCT 27		1 AUG 08	*	---	---	---	---	---	---
1985	--------P----	MANUAL	81 AUG 20		81 AUG 20		---	---	---	---	---	---
1986	--------P----	MANUAL	83 AUG 8		82 AUG 8		---	---	---	---	---	---
1987	----P---P----	MANUAL	89 SEP 30	*	70 MAY 28		---	---	---	---	---	---
1988	----P-P-----	MANUAL	83 JUL 20		84 MAY 12		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF002

SUSPENDED SEDIMENT FOR 1988

LOCATION: LAT 43 04 30 N LONG 81 38 35 W
DRAINAGE AREA: 866 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 35 400 TONNES FOR THE PERIOD MAR 01 TO DEC 31

REMARKS: OPEN WATER SAMPLING ONLY

DAY	MAR DAILY DISCHARGE (m³/s)	MAR MEAN CONCENTRATION (mg/L)	MAR DAILY LOAD (t)	APR DAILY DISCHARGE (m³/s)	APR MEAN CONCENTRATION (mg/L)	APR DAILY LOAD (t)	MAY DAILY DISCHARGE (m³/s)	MAY MEAN CONCENTRATION (mg/L)	MAY DAILY LOAD (t)	DAY
1	7.80 B	13	8.84	18.8	90 S	131	3.80	116	38.1	1
2	7.30 B	18	11.4	13.7	87	87.5	3.38	130	38.0	2
3	7.32 B	28	18.8	13.1	111 S	128	3.08	133 S	35.2	3
4	7.80 B	23	15.5	21.7	184	384	2.88	133	33.1	4
5	7.38 B	18	11.4	20.8	130 S	234	2.71	132	30.9	5
6	8.22 B	14	8.84	16.8	91	132	2.82	141 S	31.9	6
7	10.0 B	21	18.1	15.3	108	138	2.64	148	31.4	7
8	20.6 B	50	89.9	13.5	99 S	115	2.31	130	24.8	8
9	48.2 B	91	383	11.1	83	88.2	2.11	115	21.0	9
10	70.6 B	142	868	9.28	104	83.5	2.43	130	27.3	10
11	83.0 B	189	789	7.67	118 S	78.9	2.80	142 S	31.9	11
12	41.8	140	506	5.78	118	88.2	2.40	142	29.4	12
13	35.3	118	383	5.18	118 S	83.3	2.18	136	25.7	13
14	28.5	103	283	5.83	128	88.8	2.00	131 S	22.8	14
15	23.0	84	167	8.04	108 S	85.3	1.88	128	20.3	15
16	16.2	78	120	5.70	78	38.4	2.83	150	38.0	16
17	14.8	88 S	88.2	5.38	88	27.5	5.75	142 S	82.8	17
18	13.5	81	71.2	5.35	84	38.8	9.84	391	332	18
19	14.0	82	88.2	5.37	71 S	32.8	7.35	422	268	19
20	13.0	83	82.1	5.02	88	38.8	5.40	329 S	153	20
21	11.4	74	73.8	4.82	74	30.8	4.28	238	87.8	21
22	8.88	77 S	83.8	4.78	78 S	32.8	3.89	172	57.8	22
23	8.82	81	77.2	4.80 E	78	31.1	4.04	181	83.2	23
24	38.0	270 S	810	5.40 E	72	38.1	3.81	187 S	81.7	24
25	83.5	488	2 850	9.10 E	88	84.3	3.38	128	38.1	25
26	88.4	173 S	1 310	8.85 E	88 S	48.3	2.74	110	28.0	26
27	78.0	72 S	473	7.88 E	80 S	84.3	3.30	111 S	32.1	27
28	48.1	48 S	188	5.50	108	80.4	1.84	112	18.8	28
29	28.6	83 S	138	4.81	110 S	42.8	1.87	118	17.0	29
30	23.8	78 S	183	3.87	110	37.7	1.47	134	18.7	30
31	20.2	101	178				1.33	127 S	14.8	31
TOTAL	887.87		10 088.78	271.47		2 388.8	101.48		1 732.8	TOTAL

DAY	JUN DAILY DISCHARGE (m³/s)	JUN MEAN CONCENTRATION (mg/L)	JUN DAILY LOAD (t)	JUL DAILY DISCHARGE (m³/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m³/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	DAY
1	1.37	130	16.3	0.215	89 S	1.88	0.908	177	13.8	1
2	1.43	180	18.8	0.188	88	1.40	0.881	148 S	8.77	2
3	1.38	184 S	18.3	0.188	84	1.38	0.830	133	8.08	3
4	1.18	148	14.8	0.180	78	1.08	0.315	108	2.84	4
5	0.878	145	12.3	0.155	81 S	1.04	0.220	78	1.44	5
6	0.881	143	10.8	0.148	88	1.10	0.275	104	2.47	6
7	0.802	141 S	8.77	0.148	89	1.12	0.383	125	3.08	7
8	0.730	138	8.88	0.124	91 S	0.87	0.307	126 S	3.40	8
9	0.826	138	7.38	0.108	88	0.82	0.248	110	2.34	9
10	0.891	144 S	7.35	0.118	89	0.81	0.207	104	1.88	10
11	0.880	182	7.78	0.118	84	0.83	0.178	101	1.84	11
12	0.888	181	7.81	0.130	87	0.88	0.171	84	1.38	12
13	0.844	147	8.81	0.183	81	1.44	0.188	80	1.21	13
14	0.488	140 S	8.88	0.218	88	1.78	0.148	88	1.03	14
15	0.448	138	8.31	0.217	84 S	1.87	0.178	93 S	1.43	15
16	0.407	143	8.03	0.281	81	1.87	0.244	111	2.34	16
17	0.378	148 S	4.71	2.24	378	108	0.244	139	2.83	17
18	0.388	137	4.35	2.45	386 S	78.4	0.188	137	2.03	18
19	0.342	128	3.78	0.881	213	18.1	0.144	117	1.48	19
20	0.338	111	3.21	0.870	148	8.48	0.121	103	1.08	20
21	0.328	87 S	2.72	0.481	100	4.24	0.101	105	0.82	21
22	0.305	82	2.42	0.381	83	2.80	0.088	115	0.88	22
23	0.283	88	2.18	0.280	88	2.13	0.084	148 S	1.18	23
24	0.284	88 S	1.88	0.374	108	2.48	0.141	187	1.81	24
25	0.248	84	1.80	0.283	108	2.57	0.174	180	2.28	25
26	0.248	84	1.80	0.208	88 S	1.80	0.181	188	2.81	26
27	0.232	82	1.84	0.143	74	0.91	0.187	141	2.38	27
28	0.221	82 S	1.87	0.107	87	0.82	0.188	117	1.88	28
29	0.208	81	1.43	0.088	80	0.80	0.178	93	1.44	29
30	0.287	80	2.00	0.220	88	1.88	0.188	85 S	1.43	30
31				1.14	280	24.8	0.218	82	1.84	31
TOTAL	18.488		188.36	13.874		272.34	7.484		81.05	TOTAL

B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF002

SUSPENDED SEDIMENT FOR 1984

DAY	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DAY
1	0.234	60	1.62	0.240	82	1.70	5.20	19 S	13.5	1
2	0.277	78	1.88	0.328	74	2.10	5.74	15	8.74	2
3	0.323	76	2.18	0.832	90	4.14	5.67	13	6.37	3
4	0.218	83	1.18	0.782	116 S	7.54	5.04	15	6.53	4
5	0.847	120	5.67	0.854	114	8.41	5.98	32	15.4	5
6	1.18	287 S	28.6	0.634	103 S	7.42	15.7	83	134	6
7	0.728	148	9.30	0.803	97	8.73	15.3 A	43 S	80.8	7
8	0.557	117	5.83	0.887	89	5.13	14.2 E	38	42.9	8
9	0.480	108	4.21	0.570	85	4.18	15.9 A	51	74.5	9
10	0.384	87	3.08	0.886	85 S	6.30	22.3	84	133	10
11	0.267	88	2.38	0.778	104	6.87	39.2	188	884	11
12	0.265	88	2.27	8.77	237 S	200	32.8 A	78 S	185	12
13	0.237	105 S	2.15	20.8	348	614	47.7 A	126	515	13
14	0.228	101	1.87	28.2	170	370	80.8 A	187	1 170	14
15	0.203	89	1.58	25.2	87 S	189	86.9 E	81	300	15
16	0.193	86	1.40	13.7	47	55.6	37.3 A	44 S	142	16
17	0.218	77	1.46	7.83	42	27.7	26.0 A	36	83.1	17
18	0.251	92	2.00	14.3	140	173	16.0 A	33	51.3	18
19	0.306	138	3.58	18.1	91 S	142	13.8 A	29	34.8	19
20	0.305	140 S	3.86	13.6	85	84.6	12.4	27	28.9	20
21	0.288	132	3.04	10.8	37	34.9	44.2	98	387	21
22	0.281	101 S	2.84	8.82	74	83.4	84.5	63 S	493	22
23	0.338	103	2.89	10.4	98	81.1	38.4	61	183	23
24	0.458	122	4.86	8.38	48 S	35.4	28.1	49 S	108	24
25	0.805	128	8.88	8.83	83	45.6	18.2	47	73.9	25
26	0.533	132	8.08	20.8	107	180	14.0	40	48.4	26
27	0.480	115 S	4.73	31.8	140	388	11.8	38	38.1	27
28	0.358	103	3.18	27.0	88	205	10.3	33	28.4	28
29	0.241	95	1.98	20.3	47	83.4	8.05	27	21.3	29
30	0.234	81	1.84	15.2	23	30.2	8.40	21	15.2	30
31				11.0	18	15.2				31
TOTAL	11.068		130.89	330.253		3 042.33	723.81		5 018.84	TOTAL

DAY	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAILY DISCHARGE (m^3/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m^3/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	8.20	21	14.8							1
2	8.38	23	16.8							2
3	8.78	23	17.4							3
4	13.8	83	88.8							4
5	12.9	34 S	37.9							5
6	11.4	27	28.8							6
7	10.3	27	24.0							7
8	8.83	35 S	27.0							8
9	7.48	31	20.1							9
10	8.28	25	13.8							10
11	5.80 E	22	10.8							11
12	5.02 E	18	7.81							12
13	4.63 E	18	8.87							13
14	4.18 E	13	4.88							14
15	3.80 E	14	4.72							15
16	3.58 E	15	4.88							16
17	3.38 E	15	4.87							17
18	3.25 E	15	5.34							18
19	3.18 E	15	5.24							19
20	3.16 E	16	4.37							20
21	3.30 E	38	7.88							21
22	5.80 E	37	17.8							22
23	22.0 E	58	110							23
24	20.8 E	75	133							24
25	26.3	45	102							25
26	18.7	38	48.4							26
27	15.8	38	38.8							27
28	47.1	183	705							28
29	51.1	133	867							29
30	34.8	84	191							30
31	28.0	48	110							31
TOTAL	408.77		2 490.81							TOTAL

A - MANUAL GAUGE B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 17	13:30		14.8	12.0	DH59	71															
MAR 22	15:15		8.88	12.0	DH59	75															
MAR 24	10:00		61.5	12.0	DH59	307	307														
MAR 26	09:40		80.1	12.0	DH59	179															
MAR 26	15:15		91.5	12.0	DH59	138															
MAR 27	17:00		71.8	12.0	DH59	84															
MAR 28	09:00		51.1	12.0	DH59	47															
MAR 28	10:30		42.2	12.0	DH59	44															
MAR 28	11:00		39.2	12.0	DH59	53															
MAR 29	10:10	10.0	27.6	12.0	DH59	52															
MAR 30	10:30	8.0	23.0	12.0	DH59	88															
APR 01	11:40	10.0	18.8	12.0	DH59	95															
APR 03	14:30	12.0	13.7	12.0	DH59	131															
APR 05	11:15	11.0	21.0	12.0	DH59	131															
APR 06	10:15	7.0	13.1	12.0	DH59	95															
APR 11	10:35	8.0	10.3	12.0	DH59	118															
APR 13	13:15	12.0	8.18	12.0	DH59	122															
APR 15	16:00	8.0	8.14	12.0	DH59	100	247														
APR 19	15:10	4.0	5.33	12.0	DH59	71															
APR 22	15:45	10.0	4.77	12.0	DH59	80															
APR 26	15:30	12.0	4.73	12.0	DH59	85															
APR 27	08:30	11.0	7.88	12.0	DH59	75															
APR 29	10:10	8.0	4.36	12.0	DH59	108															
MAY 03	15:15	11.0	3.02	12.0	DH59	135															
MAY 06	13:45	15.0	2.88	12.0	DH59	144															
MAY 11	08:30	14.0	2.56	12.0	DH59	141															
MAY 14	14:00	18.0	2.11	12.0	DH59	131															
MAY 17	10:30	16.0	5.51	12.0	DH59	105	388														
MAY 20	14:00	18.0	5.56	12.0	DH59	323															
MAY 24	17:00	16.0	4.01	12.0	DH59	151															
MAY 27	10:30	20.0	3.80	12.0	DH59	111															
MAY 31	16:00	24.0	1.83	12.0	DH59	126															
JUN 03	10:30	16.0	1.61	12.0	DH59	158															
JUN 07	17:10	24.0	0.986	12.0	DH59	141															
JUN 10	16:45	18.0	0.735	12.0	DH59	148															
JUN 14	16:30	26.0	0.649	12.0	DH59	139															
JUN 17	14:50	22.0	0.371	12.0	DH59	148															
JUN 21	10:00	26.0	0.323	12.0	DH59	95															
JUN 24	16:30	22.0	0.255	12.0	DH59	84															
JUN 28	15:30	20.0	0.227	12.0	DH59	81															
JUL 01	10:00	18.0	0.207	12.0	DH59	88	334														
JUL 05	15:00	28.0	0.163	12.0	DH59	82															
JUL 08	10:00	28.0	0.121	12.0	DH59	90															
JUL 15	16:10	24.0	0.219	12.0	DH59	80															
JUL 18	15:30	28.0	1.28	12.0	DH59	308	389														
JUL 26	17:00	32.0	0.160	12.0	DH59	85															
AUG 02	15:15	30.0	0.887	12.0	DH59	146	348														
AUG 08	15:30	32.0	0.313	12.0	DH59	118															
AUG 15	15:30	34.0	0.186	12.0	DH59	82															
AUG 23	15:00	24.0	0.136	12.0	DH59	152	274														
AUG 30	15:30	20.0	0.230	12.0	DH59	84															
SEP 06	14:45	22.0	0.663	12.0	DH59	220	307														
SEP 13	15:40	21.0	0.283	12.0	DH59	108															
SEP 20	13:45	22.0	0.352	12.0	DH59	139															
SEP 22	08:45	17.0	0.286	12.0	DH59	102															
SEP 27	15:45	22.0	0.486	12.0	DH59	117															
OCT 04	14:30	24.0	0.750	12.0	DH59	118															
OCT 06	09:30	15.0	0.836	12.0	DH59	102															
OCT 10	14:30	16.0	0.897	12.0	DH59	88															
OCT 12	16:00	10.0	12.6	12.0	DH59	287	417														
OCT 18	11:00	12.0	27.4	12.0	DH59	80															
OCT 19	14:20	10.0	18.0	12.0	DH59	88															
OCT 24	15:00	8.0	10.1	12.0	DH59	48															
NOV 01	13:15		4.23	12.0	DH59	19															
NOV 07	15:30		15.7	12.0	DH59	38															
NOV 13	15:10		32.0	12.0	DH59	51															
NOV 18	14:50		35.8	12.0	DH59	41															
NOV 23	15:15		55.4	12.0	DH59	77	491														
NOV 24	12:00		35.1	12.0	DH59	48															
DEC 05	13:00		16.1	12.0	DH59	38															
DEC 06	09:05		9.05	12.0	DH59	36															

NOTE : SINGLE VERTICAL LOCATED AT 12 METRES FOR 1988

AUSABLE RIVER NEAR SPRINGBANK - STATION NO. 02FF003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1970	CCCCCCCCCCCC	MANUAL	988	MAY 18	11	JAN 27	4 520	MAY 18	35 200	96.3	96.3	---
1971	PPPCCCCCCCCC	MANUAL	238	AUG 27	18	DEC 21	887	APR 02	7 480	---	---	---
1972	CCCCCCCCCCCC	MANUAL	827	APR 17	20	FEB 22	7 780	APR 17	41 000	112	104	7.5
1973	CCCCCCCCCCCC	MANUAL	855	MAR 11	18	NOV 10	7 870	JAN 01	85 800	180	139	19.9
1974	CCCCCCCCCCCC	MANUAL	1 320	APR 04	12	DEC 20	15 200	MAR 05	83 600 *	258	181	22.7
1975	CCCCCCCCCCCC	MANUAL	1 480	APR 19	11	JAN 20	18 700	APR 19	75 200	206	170	17.4
1976	CCCCCCCCCCCC	MANUAL	804	JUL 10	22	DEC 08	5 220	MAR 06	85 500	178	172	14.1
1977	CCCCCCCCCCCC	MANUAL	648	JUN 29	43	MAR 23	5 600	MAR 13	85 500	178	173	11.8
1978	CCCCCCCCCCCC	MANUAL	414	APR 11	31	MAR 28	4 180	APR 02	39 400	108	168	11.8
1979	CCCCCCCCCCCC	MANUAL	1 550	APR 14	24	DEC 28	33 200	APR 14 *	92 900	265	176	11.4
1980	CCCCCCCCCCCC	MANUAL	758	JUN 29	18	FEB 05	5 690	MAR 22	41 500	113	166	11.2
1981	CCCCCCCCCCCC	MANUAL	890	SEP 02	11	DEC 30	4 200	SEP 02	41 300	113	163	10.9
1982	CCCCCCCCCCCC	MANUAL	1 630	MAR 31 *	8	JAN 20	18 700	MAR 31	85 700	180	165	9.8
1983	CCCCCCCCCCCC	MANUAL	712	APR 10	7	JAN 08 *	3 850	MAY 03	28 600	81.2	166	10.3
1984	CCCCCCCCCCCC	MANUAL	770	MAR 16	7	JAN 27	4 330	MAR 17	42 900	117	165	9.8
1985	CCCCCCCCCCCC	MANUAL	903	SEP 8	8	JAN 24	3 940	FEB 25	45 200	124	163	9.6
1986	CCCCCCCCCCCC	MANUAL	1 170	JUN 12	8	JAN 11	3 480	SEP 12	52 200	143	153	8.9
1987	CCCCCCCCCCCC	MANUAL	247	MAR 6	17	MAR 17	4 130	MAR 08	37 000	101	150	8.7
1988	--CCCCCCCCCC	MANUAL	323	MAY 20	19	NOV 1	2 650	MAR 25	25 400	---	---	---

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

BAYFIELD RIVER NEAR VARNA - STATION NO. 02FF007

LOCATION: LAT 43 33 03 N LONG 081 36 22 W
DRAINAGE AREA: 498 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
MAR 28	14:30	4.0	20.4	24.0	DH59	36	318														

NOTE : SINGLE VERTICAL LOCATED AT 24 METRES FOR 1988

BAYFIELD RIVER NEAR VARNA - STATION NO. 02FF007

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1985	---PPP-PP-PP	MANUAL	52	DEC 3	8	MAY 21	---	---	---	---	---	---
1986	P-P-PPP--PP-	MANUAL	414	MAR 15 *	3	JAN 10 *	---	---	---	---	---	---
1987	--PPP-PPPPPP	MANUAL	105	MAR 30	4	MAY 8	---	---	---	---	---	---
1988	--P----------	MANUAL	36	MAR 28	36	MAR 28	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

BEAR CREEK BELOW BRIGDEN - STATION NO. 02EC008

LOCATION: LAT 42 46 42 N LONG 082 17 54 W
DRAINAGE AREA: 533 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MARCH 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 12	10:00	8.0	2.82	24.0	DH59	184	488														
NOV 16	09:50	9.0	21.5	24.0	DH59	174	418														

NOTE : SINGLE VERTICAL LOCATED AT 24 METRES FOR 1988

BEAR CREEK BELOW BRIGDEN - STATION NO. 02EC008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1986	--PPPPP-PPP-	MANUAL	184	JUN 24		26	NOV 5	*	---	---	---	---	---	---
1987	--PPP-PPPPP-	MANUAL	233	APR 7	*	40	MAR 18		---	---	---	---	---	---
1988	---P------P-	MANUAL	184	APR 12		174	NOV 16		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

BEAVER RIVER NEAR CLARKSBURG - STATION NO. 02FB008

LOCATION: LAT 44 31 20 N LONG 080 28 00 W
DRAINAGE AREA: 572 km²
TYPE OF FLOW: REGULATED SINCE 1918
TYPE OF GAUGE: RECORDING

REMARKS: STATION STARTED MAR 1987

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 25	14:45	7.0	8.58	10.0	DH48	3	289														
NOV 29	10:15	4.0	8.82	10.0	DH48	15	384														

NOTE : SINGLE VERTICAL LOCATED AT 10 METRES FOR 1988

BEAVER RIVER NEAR CLARKSBURG - STATION NO. 02FB008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1987	--PPPPP-PPP-	MANUAL	38	NOV 30	*	4	MAR 17		---	---	---	---	---	---
1988	---P------P-	MANUAL	15	NOV 29		3	APR 25	*	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ONTARIO

BIG OTTER CREEK NEAR CALTON - STATION NO. 02EC026

SUSPENDED SEDIMENT FOR 1985

LOCATION: LAT 42 42 30 N LONG 80 50 30 W
DRAINAGE AREA: 878 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 99 000 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS:OPEN WATER SAMPLING ONLY

	JAN			FEB			MAR			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	5.96 B	53	31.6	24.6	254	630	6.36 B	95	52.4	1
2	5.69 B	53	27.0	25.5	254	560	6.27 B	95	51.6	2
3	5.38 B	49	23.3	14.5 B	149 S	183	6.16 B	333	118	3
4	5.06 B	48	20.1	10.4 B	113	102	6.11 B	338	178	4
5	4.74 B	44	18.0	8.36 B	97	70.1	6.07 B	305	106	5
6	4.48 B	43	16.7	8.77 B	88	66.6	7.05 B	167	108	6
7	4.32 B	38	14.3	8.84 B	88	61.8	11.0 B	141	134	7
8	4.17 B	34	12.2	8.26 B	85	38.8	11.2 B	125	121	8
9	4.03 B	33	11.1	4.83 B	78	33.7	13.0 B	100	213	9
10	3.88 B	32	10.7	4.86 B	74	29.8	15.9	489	844	10
11	3.78 B	30	9.78	4.46 B	87	26.8	13.0	281 S	293	11
12	3.70 B	27	8.83	4.29 B	88	21.8	11.1	195	182	12
13	3.63 B	28	7.84	4.16 B	80	18.1	11.8	183	183	13
14	3.80 B	26	7.48	4.11 B	48	18.0	10.8	148	139	14
15	3.89 B	21	8.44	8.32 B	118	63.3	8.83	127	104	15
16	3.96 B	17	5.85	5.93 B	287	122	8.35	138	90.8	16
17	4.24 B	18	6.66	7.16 B	234	138	8.09	143	100.0	17
18	5.33 B	107	49.3	7.39 B	187	118	7.52	130	84.6	18
19	4.88 B	71	30.8	7.77 B	170	114	7.05	135 S	78.1	19
20	4.35 B	68	25.6	10.3 B	285	326	6.96	117	70.3	20
21	7.06 B	88	53.4	8.68 B	231	193	6.81	111	83.4	21
22	6.03 B	46	18.7	8.72 B	181	180	8.13	128	88.3	22
23	4.87 B	46	19.0	28.4 B	615	1 400	8.21	136	74.6	23
24	4.33 B	36	13.5	22.7 B	877	1 330	7.98	148	88.7	24
25	4.18 B	33	11.9	14.0 B	312	377	14.7	434	881	25
26	4.06 B	31	10.9	8.73 B	238	188	61.5	2 170	7 780	26
27	3.96 B	34	8.35	8.02 B	283	141	42.6	1 480	5 470	27
28	3.83 B	33	11.2	8.07 B	145	67.3	31.5	838	2 560	26
29	3.68 B	28	8.74	8.06 B	113	64.6	22.5	644 S	1 280	29
30	8.20 B	30	18.1				19.9	417	717	30
31	12.8 B	180	174				16.6	287	438	31
TOTAL	181.85		887.32	284.63		8 838.2	400.38		33 070.0	TOTAL

	APR			MAY			JUN			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	13.8	242	291	7.11 E	169	104	3.81	101	33.4	1
2	12.3	233	248	6.33 E	125	67.3	3.00	126 S	33.3	2
3	16.6	447	902	5.52 E	86	48.7	3.88	123	30.4	3
4	34.1	1 050 S	3 080	5.03 E	85	38.8	3.80	104	28.2	4
5	36.0	472	1 470	4.98 E	73	39.4	3.72	95	32.3	5
6	28.0 E	237	594	4.30 A	71	28.6	3.88	95	23.7	6
7	23.0 E	307	383	4.16 E	87	34.3	3.86	109	34.3	7
8	17.0 E	175	257	3.86 E	82	31.2	3.46	114 S	36.4	8
9	13.6 E	133	155	4.07 E	83	31.8	3.48	104	33.2	9
10	11.2 E	118	115	4.30 E	88	31.8	3.42	106	32.2	10
11	8.80 E	117	80.0	4.13 E	49	17.8	3.30	85	30.2	11
12	7.80 E	113	74.2	3.98 E	44	18.1	3.33	93	18.7	12
13	8.80 E	108	83.6	3.88 E	43	14.0	3.31	86	17.6	13
14	8.28 E	108 S	97.2	3.88 E	40	12.8	3.24	84	18.3	14
15	9.88 E	107	84.1	3.80 E	50	16.8	3.18	80	14.8	15
16	8.60 E	107	81.8	4.20 E	188	71.8	3.08	78 S	13.8	16
17	8.38 E	108	46.6	4.80 E	810 S	203	1.98	82	18.8	17
18	8.18 E	103	46.1	4.88 A	188 S	71.8	1.93	86	14.8	18
19	8.04 E	85	41.4	5.73	185	81.7	1.84	88	13.8	19
20	4.88 E	80	36.8	4.88	119	80.3	1.88	88	14.8	20
21	5.18 E	80	35.8	4.88	110	47.3	1.90	106 S	17.7	21
22	5.00 E	77	33.3	5.84	188	78.8	1.87	116	18.8	22
23	5.28 E	78	36.8	5.83	180	87.8	1.88	110	18.8	23
24	5.06 E	73	31.8	6.08	163	83.1	1.80	104	18.2	24
25	4.81 A	88	28.2	4.38	88	37.8	1.87	113	18.3	25
26	4.88	88	37.3	4.08	81	38.3	1.81	112	17.8	26
27	4.80	84	26.8	3.71	83	28.8	1.82	114	17.8	27
28	4.84	83	26.8	3.48	82	27.7	1.77	108 S	16.7	28
29	8.72	88	47.4	3.31	88	28.8	1.88	107	14.8	29
30	8.74	188 S	114	3.14	88	23.8	1.48	108	13.8	30
31				3.02	88	28.8				31
TOTAL	318.47		8 188.1	138.84		1 438.8	88.81		883.8	TOTAL

A - MANUAL GAUGE B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

BIG OTTER CREEK NEAR CALTON - STATION NO. 02EC025

SUSPENDED SEDIMENT FOR 1988

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	1.54	110	14.6	30.4 E	405	1 020	2.20	28 S	4.94	1
2	1.70	118	17.3	19.4 E	535	818	2.08	37	4.81	2
3	1.58	97	13.3	7.33 E	263	167	2.86	88	33.4	3
4	1.54	93	12.4	5.60 E	163	71.4	3.22	107	28.8	4
5	1.48	73	9.31	4.74 E	172	70.4	2.81	87	19.3	5
6	1.28	87 S	9.63	4.00 E	178	89.8	2.77	72	17.2	6
7	1.38 A	107 S	11.8	4.30 E	148 S	85.4	3.08	78	20.8	7
8	1.00 E	87	8.38	4.00 E	141	48.7	2.88	88	14.8	8
9	0.800 E	80	6.83	3.70 E	138	43.5	2.51	42	9.11	9
10	0.760 E	98	6.18	3.80 E	130	39.3	2.38	48	9.87	10
11	0.880 E	48	3.73	3.10 E	141	38.5	2.14	34	5.28	11
12	0.630 E	35	2.48	5.93 E	197	101	2.13	32	5.89	12
13	0.730 E	35	1.84	11.0 E	388	387	2.14	34 S	9.29	13
14	0.600 E	33	1.37	7.33 E	245	163	2.08	39 S	8.81	14
15	1.01 E	138	17.8	5.72 E	181	79.8	2.00	34	5.88	15
16	1.41 E	87 S	10.8	4.61 E	118	48.2	1.88	33	5.85	16
17	11.3 E	317	308	3.88	91	28.9	2.17	48	8.44	17
18	7.84 E	283	241	3.26	78	22.0	2.27	58	11.9	18
19	4.18 E	135	44.8	3.02	74	18.7	2.23	43	8.31	19
20	3.34 E	74	20.7	2.88	68	15.6	2.39	48	9.39	20
21	2.88 E	68	15.8	2.48	57	12.1	2.33	43	8.48	21
22	2.32 E	108	102	2.18	50	9.42	2.24	43 S	8.13	22
23	2.05 E	138	70.5	2.08	68	12.2	3.83	107	32.8	23
24	1.78 E	131	88.8	2.37	87 S	11.7	3.18	78	21.8	24
25	4.48 E	470 S	181	2.35	48	8.78	2.81	38	8.81	25
26	5.30 E	83	37.3	2.23	48	8.87	2.74	37	8.38	26
27	8.48 A	83	48.8	2.18	41	7.78	2.83	38	8.12	27
28	4.78 E	113	48.7	2.78	42 S	8.88	2.60	18	3.73	28
29	3.07 E	61	18.3	2.88	34	8.58	2.31	18	3.78	29
30	2.87 E	39	8.87	2.43	34	8.04	2.20	21	3.88	30
31	12.8 E	173	187	2.35	32	4.28				31
TOTAL	108.010		1 837.88	181.48		3 170.58	74.77		330.40	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	2.12	18	3.31	4.88	20	7.83	8.10	80	33.8	1
2	2.28	18	3.88	4.38	18	6.83	8.81	80	30.8	2
3	2.58	18 S	3.97	4.28	12	4.48	8.88	87 S	27.8	3
4	2.47	18	3.41	4.18	8	3.23	8.33	88	28.8	4
5	2.38	18 S	3.84	4.38	18	8.83	8.88	83	33.3	5
6	2.24	8	1.88	8.88	38	17.2	8.82	80	31.7	6
7	2.21	8	1.72	10.8	101 S	82.8	4.82	48	18.8	7
8	2.14	8	1.88	18.2	178	278	4.78	48	18.8	8
9	2.38	17	3.81	38.8	278	488	4.84	48	17.7	9
10	2.48	17	3.81	17.8	128	182	4.38 S	48	17.4	10
11	2.47	84	18.2	18.8	142	227	4.14 S	83	18.8	11
12	4.31	81	18.8	18.7	122	188	4.88 S	88	38.8	12
13	4.48	88	18.8	38.7	285	818	4.81 S	77	32.8	13
14	4.13	38 S	8.87	31.3	437 S	1 180	4.31 S	78	38.1	14
15	3.87	38	8.34	28.8	200	438	4.33 S	81	32.3	15
16	3.38	18	4.84	18.8	188	234	4.88 S	47	18.8	18
17	3.18	18	4.88	13.8	137 S	142	3.88 S	37	13.4	17
18	8.22	380 S	208	8.48	108	88.8	3.81 S	32	10.8	18
18	18.8	727	1 818	7.88	88	48.4	3.88 S	28	8.78	18
20	18.8	381	272	8.88	88	88.8	8.38 S	38	13.8	20
21	12.8	148	181	38.8	782 S	1 838	18.7 S	88	83.2	21
22	18.8	88	78.8	38.8	484 S	1 188	8.78 S	72	88.7	22
23	8.37	84	48.2	21.2	288	478	11.8 S	84	88.8	23
24	8.37	78	87.1	18.1	178	307	18.8 S	174	238	24
25	7.78	88	44.4	18.8	112	183	13.7	88	88.8	25
28	7.88	88	33.8	8.88	81	82.3	8.83	38	31.2	28
27	8.21	82	37.8	8.18	72	88.4	8.88	88	48.8	27
28	8.88	48	38.8	7.88	87	44.2	27.7	888	1 218	28
28	8.84	41	18.8	7.38	83	38.8	33.2	484	1 388	28
30	8.24	38	13.8	8.84	88	33.8	21.7	283	483	30
31	4.83	34 S	10 3				18.7	178	238	31
TOTAL	178.13		2 388.83	388.88		7 888.72	273.18		4 288.88	TOTAL

A - MANUAL GAUGE B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

BIG OTTER CREEK NEAR CALTON - STATION NO. 02EC026

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
FEB 03	10:20	0.1	14.5	34.0	DH59	147															
MAR 11	08:37	0.1	14.2	34.0	DH59	280															
MAR 18	09:20	0.1	8.60	34.0	DH59	125															
MAR 29	09:00	10.0	21.3	34.0	DH59	681															
APR 04	14:00	12.0	36.2	34.0	DH59	1130	288														
APR 14	14:03	17.0	9.25	34.0	DH59	107															
APR 30	13:58	14.0	7.00	34.0	DH59	206															
MAY 17	08:50	10.0	8.39	34.0	DH59	484															
MAY 18	13:00		8.85	34.0	DH59	106															
JUN 02	14:05	26.0	2.85	34.0	DH59	138															
JUN 06	13:55	17.0	2.47	34.0	DH59	116	356														
JUN 16	10:15	22.0	2.11	34.0	DH48	77															
JUN 21	15:45	33.0	1.94	34.0	DH59	114															
JUN 28	14:45	27.0	1.79	34.0	DH59	106															
JUL 06	09:10	26.0	1.31	34.0	DH59	74															
JUL 07	13:10	26.0	1.26	34.0	DH48	105															
JUL 18	14:30	32.0	1.41	34.0	DH59	81															
JUL 25	10:55	28.0	4.45	34.0	DH59	690	408														
AUG 07	11:00	28.0	4.30	34.0	DH59	149	328														
AUG 24	09:00	17.0	2.48	34.0	DH59	81															
AUG 26	13:15	20.0	2.44	34.0	DH48	38															
SEP 01	08:25	17.0	2.26	34.0	DH59	27															
SEP 13	10:45	18.0	2.34	34.0	DH59	35															
SEP 14	15:05	17.0	2.11	34.0	DH48	46															
SEP 22	09:13	15.0	2.18	34.0	DH59	37															
OCT 03	11:00	15.0	2.84	34.0	DH59	19															
OCT 05	10:40	9.0	2.40	34.0	DH48	10															
OCT 14	10:00	8.0	4.19	34.0	DH59	28															
OCT 18	17:45	10.0	8.21	34.0	DH59	582	403														
OCT 31	15:40	6.0	4.58	34.0	DH59	25															
NOV 07	15:30	3.0	11.0	34.0	DH59	142															
NOV 14	09:35	12.0	31.2	34.0	DH59	485	435														
NOV 17	10:45	8.0	12.0	34.0	DH59	135															
NOV 21	09:35	2.0	23.7	34.0	DH59	513															
NOV 22	15:55	5.0	27.8	34.0	DH59	346															
DEC 03	12:35	6.0	25.1	34.0	DH59	57	440														

NOTE : SINGLE VERTICAL LOCATED AT 34.0 METRES FOR 1988

BIG OTTER CREEK NEAR CALTON - STATION NO. 02EC026

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1975	PPPPPPPCCCCC	MANUAL	845	AUG 25	62	OCT 06	3 470	DEC 18	35 800	---	---	---
1976	CCCCCCCCCCCC	MANUAL	1 880	MAR 05	11	OCT 12	9 810	MAR 06	139 000	384	384	---
1977	CCCCCCCCCCCC	MANUAL	2 520	SEP 26	23	FEB 22	14 200	SEP 27	177 000	484	419	15.8
1978	CCCCCCCCCCCC	MANUAL	2 600	SEP 15	36	NOV 10	8 340	MAR 23	108 000	297	378	14.8
1979	CCCCCCCCCCCC	MANUAL	3 300	APR 14	54	SEP 27	34 100	APR 15 *	187 000	513	412	13.5
1980	CCCCCCCCCCCC	MANUAL	3 850	SEP 14	46	NOV 20	19 400	MAR 22	185 000	532	438	10.7
1981	CCCCCCCCCCCC	MANUAL	1 330	OCT 01	37	FEB 10	8 110	FEB 24	114 000	313	418	10.4
1982	CCCCCCCCCCCC	MANUAL	2 410	MAY 28	19	OCT 05	12 600	APR 01	258 000 *	707	457	12.1
1983	CCCCCCCCCCCC	MANUAL	5 130	AUG 12	32	MAY 17	30 600	AUG 12	237 000	648	481	11.1
1984	CCCCCCCCCCCC	MANUAL	8 170	SEP 26 *	28	OCT 11	17 700	MAY 23	189 000	518	488	9.8
1985	CCCCCCCCCCCC	MANUAL	4 830	MAR 25	36	JAN 8	11 500	MAR 09	182 000	497	488	8.7
1986	CCCCCCCCCCCC	MANUAL	2 850	MAR 15	28	FEB 12	23 800	MAR 20	164 000	450	488	8.0
1987	CCCCCCCCCCCC	MANUAL	1 480	APR 8	17	JUL 31	9 030	MAR 09	90 500	248	488	8.7
1988	CCCCCCCCCCCC	MANUAL	1 130	APR 4	10	OCT 5 *	7 780	MAR 28	89 000	181	442	10.0

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

BIGHEAD RIVER NEAR NEAFORD - STATION NO. 02FB010

LOCATION: LAT 44 34 10 N LONG 080 38 00 W
DRAINAGE AREA: 383 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MAR 1987

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 25	13:00	7.0	5.68	10.0	DH48	11	300														
SEP 26	12:30	13.0	1.08	10.0	DH48	7	337														
OCT 25	11:00	7.0	8.83	10.0	DH48	13	330														
NOV 29	13:15	4.0	4.48	10.0	DH48	4	353														

NOTE : SINGLE VERTICAL LOCATED AT 10 METRES FOR 1988

BIGHEAD RIVER NEAR NEAFORD - STATION NO. 02FB010

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1987	--PPPPP-PPP-	MANUAL	53 NOV 30 *		5 MAY 25		---	---	---	---	---	---
1988	---P----PPP-	MANUAL	13 OCT 25		4 NOV 29 *		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

BLACK RIVER NEAR MARATHON - STATION NO. 02BB003

LOCATION: LAT 48 41 30 N LONG 086 12 45 W
DRAINAGE AREA: 1 880 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 12	12:00	5.0	57.5	21.0	D48	93	188														
JUN 22	12:00	15.0	14.4	21.0	D48	10	190														
AUG 26	10:50	15.0	5.84	21.0	D48	8	215														
SEP 28	07:50	9.0	16.0	21.0	D48	14	188														

NOTE : SINGLE VERTICAL LOCATED AT 21 METRES FOR 1988

BLACK RIVER NEAR MARATHON - STATION NO. 02BB002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---P--P--P--	MANUAL	847 APR 28	*	12 OCT 21		---	---	---	---	---	---
1986	---P--------	MANUAL	243 APR 29		210 APR 24		---	---	---	---	---	---
1987	-----P------	MANUAL	13 JUN 16		13 JUN 16		---	---	---	---	---	---
1988	----PP-PP---	MANUAL	93 MAY 12		8 AUG 26	*	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

CATFISH CREEK NEAR SPARTA - STATION NO. 02EC018

LOCATION: LAT 42 44 48 N LONG 081 03 29 W
DRAINAGE AREA: 287 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 11	11:30		3.89	7.0	DH59	25	354														
MAR 28	12:00	8.0	31.6	7.0	DH59	737	312														

NOTE : SINGLE VERTICAL LOCATED AT 7 METRES FOR 1988

CATFISH CREEK NEAR SPARTA - STATION NO. 02EC018

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---PPPPP-P--	MANUAL	185 AUG 28		18 MAY 7		---	---	---	---	---	---
1986	--P--PPPPPP-	MANUAL	506 MAR 11		13 NOV 6		---	---	---	---	---	---
1987	--PPP-P-PP-P	MANUAL	43 JUL 3		8 MAR 16	*	---	---	---	---	---	---
1988	--P----------	MANUAL	737 MAR 28	*	25 MAR 11		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002

SUSPENDED SEDIMENT FOR 1986

LOCATION: LAT 43 32 34 N LONG 79 39 26 W
DRAINAGE AREA: 785 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 17 900 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS: OPEN WATER SAMPLING ONLY

	JAN			FEB			MAR			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	4.40 B	8	3.04	60.0 E	385 S	1 850	5.60 B	13	6.81	1
2	4.26 B	6	2.20	35.0 E	140	423	5.60 B	13	6.61	2
3	4.20 B	2	0.73	18.0 B	7 S	10.8	5.80 B	10	5.10	3
4	4.10 B	4 S	1.42	10.0 B	5	4.32	5.80 B	10	5.16	4
5	4.06 B	7	2.46	8.40 B	7	5.08	5.10 B	19	10.0	5
6	4.00 B	12 S	4.15	7.20 B	7	4.35	5.40 B	40	22.1	6
7	3.97 B	10	3.43	6.70 B	6	4.63	5.80 B	58 S	32.8	7
8	3.96 B	5 S	1.71	6.40 B	8	4.42	7.20 B	68	42.8	8
9	3.93 B	4	1.36	6.10 B	8	4.74	12.0 B	58 S	88.8	9
10	3.90 B	2	0.87	6.05 B	8	4.18	21.5 B	105	185	10
11	3.90 B	0 S	0	5.80 B	10	5.10	20.4	82 S	148	11
12	4.05 B	4 S	1.40	5.70 B	8	3.84	17.2	80	119	12
13	4.40 B	13	4.84	5.60 B	11	5.33	12.6	64	68.7	13
14	4.20 B	14	5.08	6.00 B	15	7.75	10.3	38	34.7	14
15	4.00 B	14	4.84	6.00 B	36	26.3	7.66	32	21.6	15
16	3.80 B	12	4.04	11.7 B	33	33.4	7.08	36	24.7	16
17	6.00 B	8	3.69	10.3 B	14	12.5	7.38	41	26.1	17
18	12.0 B	40	41.5	8.10 B	11 S	7.70	8.17	38	25.4	18
19	10.6 B	21	19.6	7.00 B	8	4.84	7.21	38	21.8	19
20	14.0 B	83	84.1	6.20 B	11	6.89	6.38	34	18.4	20
21	17.0 B	40	58.8	6.00 B	11	5.70	6.46	35	19.5	21
22	12.0 B	7 S	7.38	6.80 B	18	8.40	8.13	48	21.3	22
23	8.00 B	5	3.46	6.50 B	84	47.0	7.80	72 S	47.8	23
24	8.80 B	8	6.70	7.40 B	48	31.3	31.4	532 S	1 440	24
25	8.00 B	7 S	3.87	7.00 B	22	13.3	42.1	430 S	1 880	25
26	5.70 B	8	3.95	6.40 B	13	7.18	51.1	588	3 000	26
27	5.80 B	8	3.87	6.00 B	13	6.74	50.2	348	1 800	27
28	5.80 B	9	4.35	6.00 B	15	7.56	25.3	67 S	186	28
29	5.80 B	7	3.38	6.80 B	14	7.02	18.6	40	63.8	29
30	5.80 B	7	3.38				18.1	48 S	78.8	30
31	20.0 E	31	53.6				18.8	47	88.2	31
TOTAL	204.80		319.89	286.00		2 883.83	470.73		5 888.20	TOTAL

	APR			MAY			JUN			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	14.3	40	49.1	7.08	22	14.9	3.87	34 S	11.7	1
2	13.0	27	30.3	6.92	9 S	5.36	3.87	30	9.61	2
3	30.1	137	238	6.50	6	2.81	3.39	61 S	14.6	3
4	43.6	220	828	6.21	3 S	1.07	3.78	48	14.7	4
5	37.6	78 S	180	5.84	6	2.52	3.52	34	10.3	5
6	19.6	88 S	93.1	6.68	12 S	5.40	3.38	36 S	11.1	6
7	18.1	80	88.6	6.54	12	5.74	4.39	81	22.8	7
8	13.0	80 S	80.0	6.29	8	2.74	4.78	57 S	23.6	8
9	11.7	44	44.5	6.34	8 S	3.88	4.24	32	11.7	9
10	10.1	38	34.0	6.06	18	9.93	3.78	17 S	5.52	10
11	8.11	37 S	28.1	6.52	18 S	10.1	3.48	17	5.07	11
12	8.88	33 S	24.4	6.11	13	6.33	3.23	26	6.88	12
13	8.04	42 S	29.3	5.78	6 S	3.00	3.07	22 S	5.64	13
14	9.03	68	53.8	5.48	8	3.78	2.81	30	6.88	14
15	9.48	69 S	48.2	5.81	66	33.1	2.73	22 S	5.18	15
16	8.11	48	33.2	11.8	130 S	133	2.81	22	4.98	16
17	7.83	36	22.8	11.8	85	66.7	2.83	36 S	6.18	17
18	8.19	36 S	26.8	9.78	41 S	34.8	2.82	34	7.40	18
19	7.88	28	19.8	8.44	41 S	28.8	2.48	42	9.04	19
20	7.42	26 S	16.0	8.32	31	22.3	2.38	38 S	8.08	20
21	8.08	34	23.7	8.88	26	26.8	2.37	38 S	7.88	21
22	7.61	28 S	16.8	8.16	46	31.8	2.78	80 S	14.3	22
23	7.37	37	23.8	7.16	40	24.7	3.01	80	13.0	23
24	7.81	30	13.2	8.38	37	20.3	2.88	44 S	11.3	24
25	7.34	13 S	8.24	8.87	38 S	19.1	2.82	33	7.47	25
26	7.03	24	14.8	8.48	66	26.8	2.38	24	4.88	26
27	7.00	36 S	21.8	8.11	61 S	22.8	2.27	27 S	8.30	27
28	7.33	32	20.0	4.71	37	18.1	2.16	30	5.86	28
29	7.07	38 S	28.2	4.38	37	14.0	2.16	14 S	2.64	29
30	8.71	47	35.4	4.17	36 S	12.8	2.16	12 S	3.33	30
31				4.14	37	13.3				31
TOTAL	345.28		2 147.84	204.88		648.00	91.37		276.13	TOTAL

B - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	2.24	18	3.10	4.24	55	20.5	1.89	21	3.33	1
2	2.14	13	2.40	3.87	46 S	14.6	1.77	31 S	4.74	2
3	2.05	9	1.58	3.04	48 S	12.1	2.88	218	86.1	3
4	1.91	7 S	1.18	2.87	35	8.00	8.88	318 E	271	4
5	1.85	10	1.90	2.46	32 S	6.77	7.24	100	82.8	5
6	1.88	10 S	1.48	2.39	30	6.18	5.38	68	31.5	6
7	1.87	8	1.32	2.38	30	6.09	3.89	46	18.1	7
8	1.81	10 S	1.30	2.34	31	6.27	3.11	28	7.78	8
9	1.38	10	1.18	2.24	35	6.77	2.87	18	4.71	9
10	1.38	13	1.88	2.12	38	6.89	2.88	19	6.18	10
11	1.84	45	7.15	2.28	36	7.08	2.40	18	3.73	11
12	2.81	85	20.8	2.88	36 S	8.78	2.38	14 S	2.88	12
13	1.82	40	6.28	3.02	33	8.81	3.27	46	13.7	13
14	1.80	32	4.42	2.70	28	6.10	3.45	31 S	4.45	14
15	1.70	28	4.11	2.62	28 S	6.33	3.08	14	3.48	15
16	2.33	52	10.5	2.42	28	5.44	1.84	13 S	2.07	16
17	5.34	112	51.7	3.74	186 S	83.3	7.42	183	124	17
18	2.83	45	10.5	2.82	30 S	6.53	5.00	90	48.7	18
19	2.27	34	6.67	2.21	22 S	4.20	4.42	53 S	20.3	19
20	1.88	23	3.89	1.87	22	3.74	3.81	40	13.2	20
21	1.82	16	2.52	1.88	20	3.38	3.48	31 S	9.27	21
22	2.83	43	10.5	1.78	18 S	2.77	3.08	32	6.82	22
23	3.58	56	17.3	2.34	88	11.1	3.73	62 S	20.0	23
24	4.74	86	27.0	4.28	181 S	88.1	3.28	32	9.01	24
25	4.28	45 S	16.7	4.08	134	47.4	2.82	18	4.84	25
26	4.47	80	18.3	3.18	72 S	18.8	2.84	8 S	3.08	26
27	3.57	32 S	8.87	2.48	48	10.5	2.80	8	1.84	27
28	2.88	20	5.10	2.28	36	7.08	2.87	21	5.21	28
29	2.87	14	3.11	2.17	34 S	6.37	2.87	21	5.21	29
30	3.74	48	15.5	2.18	34	6.35	2.88	17	3.78	30
31	7.20	85	52.8	2.08	32 S	5.78				31
TOTAL	83.78		322.21	82.88		388.82	107.81		705.08	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	2.31	13	2.58	2.88	6	1.54	4.88	11	4.48	1
2	4.47	114	44.0	3.88	8 S	2.48	4.88	8 S	3.01	2
3	4.87	48	31.0	3.43	8	2.87	4.48	8	3.31	3
4	4.52	88	38.8	3.80	3 S	0.83	4.12	7	3.48	4
5	4.13	35 S	8.80	8.77	88	33.8	4.22	11 S	4.02	5
6	3.31	17	4.88	8.88	87	48.7	4.22	13	4.88	6
7	3.00	18 S	4.82	8.71	40 S	23.2	4.25 E	8	3.30	7
8	2.78	20	4.80	8.78	58	32.4	4.00 E	8	2.78	8
9	2.72	18	3.78	8.82	46 S	28.7	3.70 E	8 S	2.88	9
10	3.28	44	12.4	8.84	78	88.0	3.40 E	8	2.84	10
11	3.88	37	11.8	8.48	84 S	48.7	3.30 E	7	1.84	11
12	3.18	18 S	4.81	8.78	45	28.0	3.23 E	8 S	1.48	12
13	2.88	18	3.78	11.2	121	117	3.27 E	8	2.28	13
14	2.81	20 S	5.03	11.8	84 S	88.8	3.33 E	7 S	3.01	14
15	2.88	20	4.80	8.83	38	28.3	3.33 E	5	1.44	15
16	2.83	18	4.18	8.82	11 S	8.48	3.33 E	3 S	0.88	16
17	2.84	38	8.34	8.18	10	5.28	3.38 E	8	2.34	17
18	8.82	208	121	8.42	12 S	8.82	3.80 E	10	3.02	18
19	4.88	80 S	23.8	4.87	12	8.08	3.90 E	7 S	2.38	19
20	3.88	32	10.8	7.38	104	88.4	4.80 E	18	7.88	20
21	3.72	35 S	11.3	10.7	88 S	80.8	5.80 E	14 S	8.88	21
22	4.43	48	17.8	8.74	31 S	23.4	5.10 E	18	8.81	22
23	4.07	29	10.2	8.84	18 S	10.8	8.00 E	88 S	28.8	23
24	4.23	22 S	8.04	8.88	12	8.17	8.70 E	38	18.7	24
25	4.20	18 S	8.44	8.38	13 S	8.08	8.28 E	13	8.80	25
26	4.48	13	8.00	8.08	12	8.24	4.88 E	4	1.88	26
27	4.30	8	3.24	8.08	8	3.82	8.00 E	84	43.8	27
28	4.18	8 S	3.28	8.08	8 S	3.82	18.0 E	81	112	28
29	3.87	8	1.72	4.78	18	4.14	10.8	38	24.3	29
30	3.73	8	1.83	4.72	17 S	8.83	8.40 E	13	7.18	30
31	3.82	8 S	1.82				8.00 E	18	8.28	31
TOTAL	118.88		400.58	187.41		782.87	184.48		318.88	TOTAL

E - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING OF VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 04	08:30	0.1	4.10 W	MID	DN4S	4															
JAN 08	08:30	0.1	4.00 W	MID	SURF	13	440														
JAN 08	08:30	0.1	3.95 W	MID	DN4S	4															
JAN 11	08:30	0.1	3.90 W	MID	SURF	1															
JAN 13	10:10	0.1	4.05 B	MID	DN4S	5															
JAN 22	08:30	0.1	12.0 W	MID	SURF	5															
JAN 25	08:30	0.1	5.80 W	MID	DN4S	6															
FEB 01	08:30	0.1	80.0 Y	MID	DN4S	356	382														
FEB 03	08:30	0.1	18.0 W	MID	DN4S	4															
FEB 18	12:18	0.1	8.10 B	MID	DN4S	10															
MAR 07	08:30	0.1	8.80 W	MID	DN4S	47															
MAR 08	08:30	0.1	12.0 W	MID	DN4S	87															
MAR 11	08:30	0.1	17.8	MID	DN4S	74															
MAR 23	08:30	0.1	5.05	MID	DN4S	48															
MAR 24	08:40	0.5	34.9	MID	DN8S	881	381														
MAR 25	08:30	1.0	36.9	MID	DN4S	332	362														
MAR 28	12:30	3.0	22.9	MID	DN4S	78															
MAR 30	08:30	5.0	18.0	MID	DN4S	50															
APR 06	07:30	5.0	30.4	MID	DN4S	83															
APR 08	07:30	7.0	30.4	MID	DN4S	95															
APR 08	07:30	5.0	14.7	MID	DN4S	46															
APR 11	07:30	7.0	9.55	MID	DN4S	39															
APR 12	08:10	5.5	8.99	MID	DN4S	39															
APR 13	07:30	5.5	8.28	MID	DN4S	42															
APR 15	07:45	5.0	9.95	MID	DN4S	59	388														
APR 18	07:30	7.0	8.45	MID	DN4S	37															
APR 20	07:40	3.0	7.51	MID	DN4S	25															
APR 22	07:40	4.5	7.91	MID	DN4S	30															
APR 25	07:30	5.0	7.78	MID	DN4S	13															
APR 27	07:30	7.0	7.08	MID	DN4S	33															
APR 29	07:30	7.0	7.78	MID	DN4S	32															
MAY 02	07:30	11.0	7.18	MID	DN4S	12															
MAY 04	07:30	10.0	8.45	MID	DN4S	3															
MAY 06	07:30	12.0	8.74	MID	DN4S	14	393														
MAY 09	07:30	14.0	8.18	MID	DN4S	3															
MAY 11	07:30	13.0	8.74	MID	DN4S	19															
MAY 13	07:30	13.0	8.87	MID	DN4S	7															
MAY 16	07:30	14.0	12.4	MID	DN4S	183	423														
MAY 18	07:30	12.0	11.1	MID	DN4S	45															
MAY 19	10:18	12.0	7.88	MID	DN4S	28															
MAY 25	07:45	12.0	8.88	MID	DN4S	35	400														
MAY 27	07:38	15.0	8.22	MID	DN4S	66															
MAY 30	07:30	20.0	4.30	MID	DN4S	36															
JUN 01	07:30	21.5	4.00	MID	DN4S	32															
JUN 03	07:30	15.0	3.84	MID	DN4S	46															
JUN 06	07:30	17.0	3.37	MID	DN4S	31															
JUN 08	07:40	14.0	4.83	MID	DN4S	66	383														
JUN 10	07:15	13.0	3.87	MID	DN4S	17															
JUN 13	07:30	15.0	3.15	MID	DN4S	16															
JUN 15	07:30	22.0	2.74	MID	DN4S	23															
JUN 17	07:30	16.0	3.61	MID	DN4S	40															
JUN 20	07:30	20.0	2.35	MID	DN4S	40															
JUN 21	07:45	20.0	2.55	MID	DN4S	41															
JUN 22	07:40	21.5	2.42	MID	DN4S	37	478														
JUN 24	07:45	17.5	2.58	MID	DN4S	38															
JUN 27	07:30	17.0	2.28	MID	DN4S	24															
JUN 29	07:45	15.0	2.23	MID	DN4S	11															
JUN 30	07:30	14.0	2.30	MID	DN4S	11															
JUL 04	07:30	15.0	1.98	MID	DN4S	7															
JUL 06	07:30	20.0	1.64	MID	DN4S	3															
JUL 08	08:00	24.0	1.88	MID	DN4S	10															
JUL 25	07:30	15.0	4.48	MID	DN4S	42	452														
JUL 27	07:30	20.0	3.09	MID	DN4S	34															
AUG 03	07:30	22.0	3.40	MID	DN4S	48															
AUG 03	07:30	24.0	3.15	MID	DN4S	46															
AUG 05	07:30	25.0	2.42	MID	DN4S	34															
AUG 12	10:20	26.0	2.87	MID	DN4S	30															
AUG 15	07:30	18.0	2.81	MID	DN4S	20															
AUG 17	11:30	28.0	7.71	MID	DN4S	555	371														
AUG 18	07:30	20.0	2.58	MID	DN4S	32															
AUG 19	07:30	17.0	2.30	MID	DN4S	21	377														
AUG 22	07:30	15.5	1.69	MID	DN4S	18															
AUG 24	07:30	17.0	3.05	MID	DN4S	68															
AUG 26	07:30	17.0	3.25	MID	DN4S	78	318														
AUG 28	07:30	13.0	2.14	MID	DN4S	35															
AUG 31	07:30	14.5	2.02	MID	DN4S	31															
SEP 02	07:30	17.0	1.72	MID	DN4S	28															
SEP 12	07:30	13.0	2.33	MID	DN4S	14															
SEP 14	07:30	14.0	2.56	MID	DN4S	25															
SEP 16	07:30	13.0	1.80	MID	DN4S	7															
SEP 19	07:30	16.0	4.82	MID	DN4S	68	420														
SEP 21	07:30	15.0	3.87	MID	DN4S	30															
SEP 21	08:00	15.0	3.87	MID	DN4S	28															
SEP 23	07:30	15.5	3.80	MID	DN4S	63															
SEP 26	07:30	13.0	2.84	MID	DN4S	10															
OCT 05	07:30	8.0	4.41	MID	DN4S	27															
OCT 07	07:15	8.5	3.12	MID	DN4S	14															
OCT 12	07:30	8.5	3.41	MID	DN4S	18															
OCT 14	07:30	4.5	2.68	MID	DN4S	22															
OCT 19	07:30	8.0	4.72	MID	DN4S	68	450														
OCT 21	07:30	8.5	3.50	MID	DN4S	23															
OCT 24	07:45	7.0	4.34	MID	DN4S	30															
OCT 25	12:30	7.0	4.48	MID	DN4S	14															
OCT 28	07:30	8.0	4.41	MID	DN4S	7															
OCT 31	08:10	1.0	3.44	MID	DN4S	3															
NOV 02	08:30	3.5	3.37	MID	DN4S	6															
NOV 04	08:30	5.0	3.44	MID	DN4S	3															
NOV 07	08:30	5.0	6.78	MID	DN4S	41															
NOV 09	08:30	5.0	6.53	MID	DN4S	41															
NOV 11	08:30	5.0	8.48	MID	DN4S	68	472														
NOV 14	08:30	4.5	11.8	MID	DN4S	104															
NOV 18	08:30	4.0	8.91	MID	DN4S	13															

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

DISCHARGE SYMBOL(S): B - ICE CONDITIONS W - DAILY MEAN; ICE CONDITIONS Y - DAILY MEAN; ESTIMATED

CONTINUED

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002(CONTINUED)

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)		SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
NOV 18	08:30	3.0	9.58		MID	DH48	19															
NOV 21	08:30	4.0	11.4		MID	DH48	104	446														
NOV 22	08:50	4.0	8.84		MID	DH48	20															
NOV 23	08:30	3.5	7.08		MID	DH48	19															
NOV 25	08:30	0.5	5.84		MID	DH48	13															
NOV 28	12:35	4.5	5.16		MID	DH48	10															
NOV 30	08:45	3.0	4.72		MID	DH48	18															
DEC 02	08:30	0.1	4.72		MID	DH48	4															
DEC 05	08:30	0.1	4.00		MID	DH48	10															
DEC 09	08:30	0.1	3.54		MID	SURF	8															
DEC 12	08:30	0.1	3.23	W	MID	SURF	1															
DEC 14	08:30	0.1	3.33	W	MID	DH48	3															
DEC 16	08:30	0.1	3.33	W	MID	DH48	4															
DEC 19	08:30	0.1	3.80	W	MID	SURF	3															
DEC 21	08:30	0.1	5.50	W	MID	SURF	13															
DEC 23	08:30	0.1	6.00	W	MID	DH48	87	1000														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS

CREDIT RIVER AT ERINDALE - STATION NO. 02HB002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)			TOTAL FOR PERIOD (TONNES)	SUMMARY : JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	HISTORICAL STANDARD ERROR OF MEAN %
1973	-------CCCCC	DUAL	280	NOV 15		1	OCT 08		353	OCT 30		3 400	---	---	---
1974	CCCCCCCCCCCC	DUAL	3 030	MAY 17	*	1	SEP 05		88 200	MAY 17	*	133 000	* 363	363	---
1975	CCCCCCCCCCCC	MANUAL	1 820	APR 19		1	JAN 06		30 200	APR 19		70 100	192	278	30.6
1976	CCCCCCCCCCCC	MANUAL	1 030	MAR 20		3	JUL 19		14 100	MAR 20		53 600	148	234	28.2
1977	CCCCCCCCCCCC	MANUAL	893	MAR 13		4	MAY 16		12 700	MAR 13		45 600	125	207	28.1
1978	CCCCCCCCCCCC	MANUAL	818	APR 01		3	OCT 03		5 540	APR 01		28 700	78.7	181	27.1
1979	CCCCCCCCCCCC	MANUAL	717	DEC 24		1	SEP 22		6 480	DEC 25		46 800	127	172	23.8
1980	CCCCCCCCCCCC	MANUAL	1 270	MAR 21		3	OCT 15		9 890	MAR 21		30 800	84.5	159	23.2
1981	CCCCCCCCCCCC	MANUAL	824	SEP 04		1	SEP 15		6 270	FEB 19		28 700	106	153	21.3
1982	CCCCCCCCCCCC	MANUAL	1 770	MAR 31		1	JAN 11		15 800	MAR 31		50 400	138	181	18.1
1983	CCCCCCCCCCCC	MANUAL	329	DEC 12		1	APR 22		1 870	FEB 03		22 100	60.4	142	19.2
1984	CCCCCCCCCCCC	MANUAL	745	APR	5	0	JAN 16	*	---	---		---	---	---	---
1985	CCCCCCCCCCCC	MANUAL	1 880	FEB 26		3	MAY 17		---	---		---	---	---	---
1986	CCCCCCCCCCCC	MANUAL	1 340	AUG 27		1	JAN 8		10 400	SEP 11		60 800	---	---	---
1987	CCCCCCCCCCCC	MANUAL	1 020	SEP 16		4	JAN 8		3 540	APR 05		24 800	68.0	138	19.0
1988	CCCCCCCCCCCC	MANUAL	881	MAR 24		1	JAN 11		3 080	MAR 26		17 900	48.0	128	18.1

DUAL - MANUAL AND AUTOMATIC SAMPLING MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH * - EXTREME FOR PERIOD OF RECORD

DON RIVER AT TODMORDEN - STATION NO. 02HC024

SUSPENDED SEDIMENT FOR 1988

LOCATION: LAT 43 41 50 N LONG 79 21 15 W
DRAINAGE AREA: 316 km²
TYPE OF FLOW: REGULATED SINCE 1973
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD IS 100 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS:

	JAN			FEB			MAR			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	2.08	38	6.73	4.24	71	26.0	1.82 E	42 S	6.80	1
2	1.81	34	5.61	3.04	32	8.40	2.36 E	78	16.2	2
3	1.86	36	6.10	1.88	34 S	3.80	2.78 E	88	19.8	3
4	1.85	41	6.86	1.84	38	5.72	2.10 E	41	7.44	4
5	1.44	30	3.73	1.87	36	4.76	2.78 E	87	18.1	5
6	1.63	40	5.63	1.81	34	4.73	4.88 E	100	42.2	6
7	1.61	38 S	4.87	1.62	33	4.33	10.0 E	172	148	7
8	1.70	41	6.02	1.66	32	4.69	7.40 E	122	78.0	8
9	1.84	30	4.26	1.69	30	4.38	8.84 E	159	127	9
10	1.68	29	3.81	1.72	24	3.87	8.18 E	144 S	102	10
11	1.85	34	4.86	1.84	28	3.33	8.71 E	103	69.1	11
12	1.89	47	6.86	1.84	28	4.11	4.24 E	61	22.3	12
13	1.81	81	8.84	1.78	33	5.10	4.28 E	80	33.1	13
14	1.60	48	6.81	1.62	37	4.26	3.32 E	88	18.8	14
15	1.88	41	6.49	8.30	73 S	68.7	2.34 E	46 S	8.30	15
16	1.80	28 S	4.81	4.83	51	20.4	2.21 E	48	8.38	16
17	2.88	127 S	28.1	3.08	38	10.3	2.28 E	46	8.10	17
18	6.68	288	161	2.82	47	11.8	2.72 E	86	13.8	18
19	3.18	71	19.8	4.82	43 S	18.8	3.58 E	43	8.88	19
20	12.8	826 S	913	8.88	88	76.8	2.40 E	31	8.43	20
21	4.22	114	41.8	2.32	32	8.80	1.86 E	34	8.82	21
22	2.81	85	11.8	8.17	48	21.4	1.87 E	84	8.72	22
23	2.20	48	8.12	8.13	38 S	30.8	3.85 E	88	18.8	23
24	3.81	181 S	48.7	2.88	37	8.38	8.82 E	108 S	88.2	24
25	2.80	72	18.2	2.38	34	4.88	8.80 E	118 S	88.2	25
26	1.84	81	8.11	1.88	38	4.81	8.88 E	88	73.8	26
27	1.43	28	3.31	2.10	82	8.43	4.21 E	78	28.1	27
28	1.81	34	4.73	2.88	41	7.28	2.87 E	38	8.44	28
29	1.80	34	4.78	2.24	41	7.83	3.10 E	38	10.2	29
30	1.88	28	4.18				2.80 E	33	7.41	30
31	2.34	28	8.88				2.28 E	48	8.14	31
TOTAL	78.23		1 380.88	83.78		388.08	132.38		1 881.88	TOTAL

	APR			MAY			JUN			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	3.32 E	48	8.40	2.32	48	8.83	1.48	28	3.80	1
2	3.10 E	48	8.88	2.00	40	6.81	1.44	34	4.23	2
3	12.2 E	321 S	338	1.84	18	3.02	2.11	101	18.4	3
4	10.6 E	188	158	1.88	11	1.80	1.81	82	8.88	4
5	8.82 E	87	32.8	1.84	8	0.88	1.83	28	3.83	5
6	8.84 E	107 S	84.0	1.84	8	1.27	1.44	24	2.88	6
7	3.20	38 S	8.88	1.72	8	0.80	1.78	40	8.08	7
8	3.32	44	12.8	1.88	8	0.72	1.87	37	8.02	8
9	2.84	24	8.27	1.78	7 S	1.08	1.42	28	3.88	9
10	2.38	22	4.47	2.38	48	8.14	1.37	28	3.31	10
11	2.30	32	4.37	1.78	40	8.18	1.33	32	3.88	11
12	2.21	34	4.58	1.73	31	4.83	1.33	38	3.22	12
13	2.18	24	4.48	1.78	28	4.41	1.28	24	2.87	13
14	8.18	324 S	338	1.87	17	2.48	1.27	23	2.82	14
15	4.14	153	84.7	3.74	211	68.2	1.28	17	1.84	15
16	2.82	88	14.2	12.2	804 S	878	1.42	38 S	3.87	16
17	3.17	81	8.88	3.82	140	48.2	1.27	28	2.74	17
18	4.88	141 S	88.8	3.44	118	38.4	1.24	27	2.88	18
19	3.38	44	8.71	8.87	428 S	388	1.21	21	2.24	19
20	2.78	77 S	18.4	4.88	127	81.0	1.22	34	2.88	20
21	3.24	87	24.4	3.08	88	18.4	1.20	33	3.42	21
22	2.88	33	8.87	2.24	48	8.80	7.88	388 S	210	22
23	2.40	48	8.84	1.84	38	8.27	3.17	118	32.8	23
24	2.88	30	3.81	1.81	38	8.83	1.78	84	8.30	24
25	1.83	22	3.48	3.20	128 S	38.4	1.38	44	8.13	25
26	3.72	138 S	41.8	1.72	48	8.84	1.37	42	4.81	26
27	4.32	143 S	83.8	1.88	42	8.88	1.31	43	4.38	27
28	3.43	70	20.7	1.88	40	8.38	1.18	41	4.18	28
29	8.77	188 S	82.2	1.80	38	4.41	1.32	37	3.88	29
30	3.14	72	18.8	1.81	28	3.38	1.38	37	3.84	30
31				1.48	24	3.87				31
TOTAL	118.48		1 318.81	88.38		1 388.87	80.43		388.88	TOTAL

E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

DON RIVER AT TODMORDEN - STATION NO. 02HC024

SUSPENDED SEDIMENT FOR 1984

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	1.20	43	4.48	1.67	78	12.1	1.21	34	3.55	1
2	1.17	46	4.65	1.47	55	6.98	1.31	27	2.83	2
3	1.16	43	4.36	1.28	39	4.35	2.34	71	14.4	3
4	1.10	35	3.33	1.35	27	3.93	33.3	1 800 E	3 800	4
5	1.17	39	3.84	1.24	28	3.00	4.72	212	86.5	5
6	1.16	46	4.68	1.20	40	4.15	2.73	51 S	12.0	6
7	1.17	42 S	4.25	1.09	25	2.35	2.54	36	7.90	7
8	1.10	41	3.90	1.14	20	1.97	2.41	31	6.45	8
9	1.13	47	4.59	1.13	28	2.81	1.84	22	3.50	9
10	1.13	86	8.47	1.16	23	2.29	1.47	17	2.16	10
11	1.84	120	17.0	3.13	113 S	30.6	1.38	19	2.26	11
12	3.83	186 S	47.6	1.33	53	6.08	1.36	19	2.33	12
13	1.23	81	8.48	1.21	34	3.55	2.78	164 S	43.7	13
14	1.58	105	14.3	1.21	46	4.81	1.56	80	8.74	14
15	1.26	80	8.84	1.52	103	13.5	1.43	34	4.20	15
16	2.67	132 S	30.5	1.16	78	7.75	1.32	33	3.76	16
17	8.12	416 S	384	7.19	816 S	384	14.2	884 S	728	17
18	1.85	107	17.1	1.78	142	22.0	3.16	160	43.7	18
19	1.42	76	8.67	1.19	42	4.32	2.61	126	27.3	19
20	1.27	57	6.26	1.13	16	1.46	2.11	102	18.6	20
21	1.30	80	8.74	1.07	16	1.38	1.56	70	8.86	21
22	2.12	132 S	24.2	1.02	20	1.76	1.48	65	10.8	22
23	2.06	72	12.8	1.62	102	13.5	6.74	316	184	23
24	4.87	284 S	126	4.87	216 S	68.7	1.62	80	14.2	24
25	3.20	245	67.7	3.54	147 S	48.0	1.44	62	7.71	25
26	6.66	455 S	353	2.48	105	22.5	1.37	46	5.33	26
27	3.17	130	32.9	1.44	62	8.47	2.43	138	26.6	27
28	1.68	68	8.11	1.39	38	3.48	4.82	148	80.4	28
29	1.34	35	4.08	1.31	38	3.88	1.72	32	4.80	29
30	4.32	208 S	87.7	1.33	38	4.46	1.44	24	2.98	30
31	2.38	84	16.8	1.30	36	4.27				31
TOTAL	70.78		1 343.40	83.77		704.71	100.40		5 149.38	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	1.88	47	8.82	1.67	28	3.75	1.68	10	1.43	1
2	10.8	212 S	200	1.70	23	3.33	1.68	8	1.28	2
3	3.48	78	22.8	1.64	21	2.88	1.81	12	1.87	3
4	10.0	306 S	180	1.88	28	4.32	1.51	8	1.04	4
5	3.81	47	14.3	10.5	264 S	230	1.84	7	0.93	5
6	1.63	12	1.80	8.14	58	30.6	1.48	9	1.15	6
7	4.20	78 S	28.3	3.39	24 S	7.03	1.81	8	1.11	7
8	3.76	48	15.6	6.12	113 S	59.6	1.82	9	1.26	8
9	1.77	18	2.45	3.16	34	9.34	1.58	8	1.07	9
10	3.70	81 S	25.8	8.00	117 S	80.7	1.33	5	0.57	10
11	2.83	35	8.63	2.67	33	8.18	1.28	5	0.84	11
12	1.83	20	3.34	3.03	22	3.68	1.38	8	0.94	12
13	1.88	20	2.67	12.5	227 S	245	1.81	8	1.04	13
14	1.88	22	3.02	4.03	78	26.1	1.81	15	2.48	14
15	1.68	18	2.48	2.82	34	8.56	3.20	33 S	8.12	15
16	1.57	15	2.58	7.52	40	6.71	1.53	21	2.78	16
17	2.06	31	5.48	2.86	51	11.9	1.68	17	2.47	17
18	14.3	235 S	290	1.87	38	4.52	1.52	15	1.97	18
19	3.17	31	8.48	1.78	23	3.84	1.58	13	1.89	19
20	2.61	28	5.84	7.74	153 S	108	2.88	42 S	10.5	20
21	3.08	78 S	20.8	8.08	88	52.1	3.28	27	8.34	21
22	8.31	104	74.7	2.88	38	8.82	1.81	20	2.78	22
23	3.13	45	12.2	2.24	28	5.03	8.82	83 S	38.0	23
24	4.88	81	32.8	1.83	22	3.87	3.08	30	7.86	24
25	3.82	82	24.8	1.68	16	2.82	2.48	26	5.31	25
26	3.78	77	25.2	1.88	18	2.41	1.84	20	3.63	26
27	2.08	40	7.22	2.20	36	6.84	7.88	88	40.7	27
28	2.28	72	14.1	1.88	22	3.87	10.7	87 S	81.8	28
29	1.67	40	6.48	1.71	16 S	2.22	2.80	31	7.77	29
30	1.70	37	3.87	1.68	13	1.80	2.34	23	4.88	30
31	1.88	28	3.71				1.88	13	2.08	31
TOTAL	114.21		1 087.28	107.80		830.82	77.57		232.80	TOTAL

E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

DON RIVER AT TODMORDEN - STATION NO. 02HC024

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002 .004 .008 .016 .031 .062 .125 .250 .500 1.00 2.00	PERCENT SAND SILT CLAY
JAN 07	11:05	2.0	1.34	10.0	DH48	30	557		
JAN 16	12:00		1.62	10.0	DH48	28			
JAN 17	23:00		11.5	10.0	DH59	544			
JAN 20	08:00		35.7	10.0	DH59	1800			
JAN 24	18:00		7.88	10.0	DH59	358			
FEB 03	13:10	0.1	1.73	10.0	DH48	37	2490		
FEB 15	14:30		28.4	10.0	DH59	88			
FEB 19	20:00		12.0	10.0	DH59	61			
FEB 23	01:00		10.8	10.0	DH59	98			
MAR 01	11:05	1.0	1.83	10.0	DH48	28	1920		
MAR 10	10:00		8.82	10.0	PB32	114			
MAR 15	14:30		2.26	10.0	DH48	42			
MAR 24	03:30		15.8	10.0	DH59	344			
MAR 25	20:45		30.5	10.0	DH59	490			
APR 03	13:30		28.2	10.0	DH59	1070			
APR 06	14:50	5.0	5.31	10.0	DH48	108	843		
APR 07	11:40	5.0	3.08	10.0	DH48	18	790		
APR 14	19:45		37.5	10.0	DH59	1470			
APR 18	03:00		10.0	10.0	DH59	330			
APR 20	23:00		8.24	10.0	DH59	258			
APR 26	12:40		9.34	10.0	DH59	303			
APR 27	18:40		11.2	10.0	DH59	378			
APR 28	15:05		12.1	10.0	DH59	415			
MAY 08	12:10	17.0	1.62	10.0	DH48	4	701		
MAY 16	01:30		48.5	10.0	DH59	1900			
MAY 18	15:30		28.2	10.0	DH59	1190			
MAY 25	07:00		6.17	10.0	DH59	251			
JUN 16	10:30	22.0	1.60	10.0	DH48	25	685		
JUN 22	08:30		27.5	10.0	DH59	948			
JUL 07	10:50	23.0	1.20	10.0	DH48	43			
JUL 12	01:00		8.48	10.0	DH59	384			
JUL 16	09:00		7.10	10.0	DH48	283			
JUL 17	08:45		18.3	10.0	DH59	803			
JUL 22	18:30		8.48	10.0	DH48	287			
JUL 24	14:30		22.6	10.0	DH59	848			
JUL 28	19:00		25.8	10.0	DH59	1080			
JUL 30	18:10		18.0	10.0	DH59	748			
AUG 11	14:45		8.82	10.0	DH48	304			
AUG 17	07:30		35.0	10.0	DH59	1780			
AUG 24	13:30	18.0	2.06	10.0	DH48	448			
AUG 25	18:30		8.81	10.0	DH59	448			
SEP 04	05:00		88.7	10.0	DH59	7780			
SEP 08	09:50		3.73	10.0	DH48	38			
SEP 13	07:00		8.89	10.0	DH48	528			
SEP 17	06:00		37.7	10.0	DH59	1440			
OCT 02	12:00		27.8	10.0	DH59	436			
OCT 04	16:00		46.3	10.0	DH59	775			
OCT 07	12:50		1.80	10.0	DH48	6			
OCT 07	22:00		18.8	10.0	DH59	288			
OCT 10	21:00		8.44	10.0	DH59	131			
OCT 16	06:30		43.9	10.0	DH59	877			
OCT 21	23:30		13.6	10.0	DH59	208			
NOV 06	15:30		44.3	10.0	DH59	803			
NOV 07	10:20	9.0	3.73	10.0	DH48	26	806		
NOV 08	13:00		14.3	10.0	DH53	248			
NOV 10	10:00		13.8	10.0	DH59	235			
NOV 13	08:30		26.4	10.0	DH59	350			
NOV 20	23:30		22.6	10.0	DH59	347			
NOV 28	10:05		1.78	10.0	DH48	14	853		
DEC 15	01:05		8.41	10.0	DH48	52			
DEC 20	15:30		3.84	10.0	DH48	47			
DEC 23	09:10		15.7	10.0	DH59	81			
DEC 28	00:30		25.8	10.0	DH59	110			

NOTE : SINGLE VERTICAL LOCATED AT 10 METRES FOR 1988

DON RIVER AT TODMORDEN - STATION NO. 02HC024

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			SAMPLED CONCENTRATION MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)			SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)		SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1985	---P-PP-PCCC	DUAL	1 270	NOV 4		4	OCT 30	*	2 900	NOV 04	*	8 770	*	---	---	---
1986	CCCCCCCCCCCC	DUAL	8 820	SEP 11	*	3	FEB 13	*	84 800	SEP 11	*	187 000	*	487	487	---
1987	CCCCCCCCCCCC	DUAL	3 380	JUL 14		5	MAR 16		2 150	JUL 14		27 800		78.2	287	71.3
1988	CCCCCCCCCCCC	DUAL	7 780	SEP 4		4	MAY 8		3 800	SEP 04		15 100		41.3	192	69.3

DUAL - MANUAL AND AUTOMATIC SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

ETOBICOKE CREEK BELOW QUEEN ELIZABETH HIGHWAY - STATION NO. 02HC030

LOCATION: LAT 43 38 02 N LONG 079 33 24 W
DRAINAGE AREA: 204 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 21	09:50	0.1	4.28	13.0	DH48	121													289		
FEB 01	11:00	1.0	8.44	13.0	DH48	203													719		

NOTE : SINGLE VERTICAL LOCATED AT 13 METRES FOR 1988

ETOBICOKE CREEK BELOW QUEEN ELIZABETH HIGHWAY - STATION NO. 02HC030

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---P-PPPPPPP	MANUAL	883 AUG 26		3 OCT 31	*	---	---	---	---	---	---
1986	-PPPP-PPPPPP	MANUAL	1 100 SEP 11	*	5 APR 11		---	---	---	---	---	---
1987	-PPPPPPPPPPP	MANUAL	377 DEC 9		3 OCT 13		---	---	---	---	---	---
1988	PP----------	MANUAL	303 FEB 1		121 JAN 21		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

FAIRCHILD CREEK NEAR BRANTFORD - STATION NO. 02GB007

LOCATION: LAT 43 08 48 N LONG 080 08 18 W
DRAINAGE AREA: 260 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
NOV 21	10:40	8.0	9.32	12.0	DH59	357													436		

NOTE : SINGLE VERTICAL LOCATED AT 12 METRES FOR 1988

FAIRCHILD CREEK NEAR BRANTFORD - STATION NO. 02GB007

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	--P-P-P---P-	MANUAL	186 MAR 13		34 MAY 8		---	---	---	---	---	---
1986	--PP-PP--P--	MANUAL	193 OCT 1		38 APR 10		---	---	---	---	---	---
1987	---PPP--PPP-	MANUAL	256 APR 8		14 NOV 23	*	---	---	---	---	---	---
1988	----------P-	MANUAL	357 NOV 21	*	357 NOV 21		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

GANARASKA RIVER ABOVE DALE - STATION NO. 02HD012

LOCATION: LAT 43 56 26 N LONG 078 19 43 W
DRAINAGE AREA: 232 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 24	15:15	2.0	18.8	8.5	DH59	956	197														

NOTE : SINGLE VERTICAL LOCATED AT 8.5 METRES FOR 1988

GANARASKA RIVER ABOVE DALE - STATION NO. 02HD012

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	-PPPP---PPPP	MANUAL	976 MAR 12		3 DEC 11 *		---	---	---	---	---	---
1986	--P-P--P----	MANUAL	1 100 MAR 15 *		17 MAY 13		---	---	---	---	---	---
1987	---P-PPPPPP-	MANUAL	108 JUL 9		11 NOV 4		---	---	---	---	---	---
1988	--P---------	MANUAL	956 MAR 24		956 MAR 24		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

SOULAIS RIVER NEAR SEARCHMONT - STATION NO. 03SF002

LOCATION: LAT 48 51 37 N LONG 083 55 16 W
DRAINAGE AREA: 1 180 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED APR 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 13	13:30	1.5	126	23.0	D48	16	120														
MAY 11	08:40	4.0	38.5	23.0	D48	14	285														
SEP 01	12:00	14.0	17.4	23.0	D48	10	188														

NOTE : SINGLE VERTICAL LOCATED AT 23 METRES FOR 1988

SOULAIS RIVER NEAR SEARCHMONT - STATION NO. 03SF002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1988	---P-P------	MANUAL	38 APR 8 *		3 JUN 11 *		---	---	---	---	---	---
1987	---P-P-P-PP-	MANUAL	31 AUG 26		9 OCT 8		---	---	---	---	---	---
1988	---PP---P---	MANUAL	16 APR 13		10 SEP 1		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

GRAVEL RIVER NEAR CAVERS - STATION NO. 02AB001

LOCATION: LAT 46 58 34 N LONG 087 41 27 W
DRAINAGE AREA: 910 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JUN 24	10:45	15.0	4.01	14.0	DH48	5	132														
SEP 21	13:55	11.0	30.9	14.0	DH48	21	127														

NOTE : SINGLE VERTICAL LOCATED AT 14 METRES FOR 1988

GRAVEL RIVER NEAR CAVERS - STATION NO. 02AB001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED MAXIMUM (mg/L)		CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	------P-PP--	MANUAL	2	SEP 11	1	JUL 12 *	---	---	---	---	---	---
1986	---P--P-----	MANUAL	15	APR 26	4	JUL 30	---	---	---	---	---	---
1987	---P-P--P---	MANUAL	12	JUN 19	1	SEP 9	---	---	---	---	---	---
1988	-----P--P---	MANUAL	21	SEP 21 *	2	JUN 24	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

HIGHLAND CREEK NEAR WEST HILL - STATION NO. 02HC013

LOCATION: LAT 43 48 42 N LONG 079 11 26 W
DRAINAGE AREA: 68.2 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 10	11:45	13.0	0.462	4.0	X DH48	13	747														
JUL 18	09:15	25.0	4.27	12.0	DH48	258	542														
JUL 18	11:00	25.0	3.82	12.0	DH48	84	393														
JUL 18	13:10	25.0	1.73	12.0	DH48	82	438														
JUL 28	12:30	23.0	8.88	12.0	DH48	2270	334														
JUL 28	13:00	23.0	8.38	12.0	DH48	1210	274														
JUL 28	13:40	23.0	8.15	12.0	DH48	302	378														

NOTE : SINGLE VERTICAL LOCATED AT 12 METRES FOR 1988

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

HIGHLAND CREEK NEAR WEST HILL - STATION NO. 02HC013

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			SAMPLED CONCENTRATION MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1985	---P-PP-PPPP	MANUAL	666	SEP 25		0	JUN 11	*	---	---	---	---	---	---
1986	-PPPPPPPPPP	MANUAL	470	MAR 19		3	NOV 20		---	---	---	---	---	---
1987	-PPPPPPPPPP	MANUAL	83	OCT 14		4	AUG 11		---	---	---	---	---	---
1988	----P-P------	MANUAL	3 270	JUL 26	*	13	MAY 10		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

ONTARIO

NUMBER RIVER AT ELDER MILLS - STATION NO. 02HC025

SUSPENDED SEDIMENT FOR 1986

LOCATION: LAT 43 48 38 N LONG 79 37 38 W
DRAINAGE AREA: 303 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 10 900 TONNES FOR THE PERIOD JAN 01 TO DEC 31

REMARKS:OPEN WATER SAMPLING ONLY

JAN				FEB			MAR			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	1.60 B	18	2.48	2.50 B	288 B	80.4	1.05 B	33	3.14	1
2	1.58 B	16	2.48	5.32 B	84 B	38.6	1.80 B	38 B	3.89	2
3	1.48 B	16 B	2.08	4.30 B	48	18.7	1.85 B	42	6.92	3
4	1.38 B	15	1.79	3.30 B	37	10.8	1.82 B	34	4.47	4
5	1.28 B	13	1.33	3.00 B	36	9.88	1.80 B	35	3.88	5
6	1.20 B	15	1.56	2.75 B	41	9.74	2.00 B	28	4.48	6
7	1.13 B	14 B	1.37	2.60 B	62	13.9	2.50 B	147 B	31.8	7
8	1.10 B	17	1.62	2.45 B	68	14.4	4.00 B	221	76.4	8
9	1.05 B	13	1.18	2.35 B	50	10.2	7.00 B	188 B	112	9
10	1.02 B	13	1.06	2.25 B	32	6.22	11.9	411 B	433	10
11	0.885 B	10	0.85	2.20 B	22 B	4.18	7.43	171	110	11
12	0.850 B	11	0.81	3.12 B	24	6.40	5.87	104	50.9	12
13	0.820 B	11	0.87	2.10 B	22	3.98	4.12	83	18.9	13
14	0.800 B	33	2.87	2.02 B	21	3.87	2.80 B	27	6.18	14
15	0.880 B	34 B	2.88	2.00 B	42	7.28	2.80 B	30	4.32	15
16	0.880 B	21	1.88	2.30 B	103 B	20.5	2.47 B	15 B	3.41	16
17	1.20 B	17	1.76	2.20 B	88	12.5	2.88 B	17	3.91	17
18	1.80 B	112 B	17.4	2.10 B	49	8.88	2.82 B	16	4.38	18
19	2.80 B	180	38.8	2.02 B	44	7.88	2.88 B	16	3.65	19
20	4.00 B	148 B	80.1	2.00 B	33	8.18	2.80 B	12	2.70	20
21	8.00 B	188	80.8	2.18 B	42	7.80	2.40 B	13	2.70	21
22	4.80 B	187	88.4	2.10 B	30	5.44	2.15 B	14	2.80	22
23	3.80 B	108	33.1	2.00 B	81	6.81	2.00 B	191 B	33.0	23
24	3.10 B	82	33.0	1.88 B	44 B	7.41	11.8 B	1 880 B	1 880	24
25	2.78 B	87	18.8	1.80 B	22	3.81	13.2 B	1 080 B	1 140	25
26	2.88 B	83	13.8	1.82 B	21	3.30	14.1 B	788 B	933	26
27	2.38 B	88 B	13.8	1.78 B	19	2.92	10.8	878 B	840	27
28	2.35 B	84	12.4	1.72 B	28	4.18	8.14	301	189	28
29	2.18 B	84	11.9	1.88 B	28	3.80	4.72	108	44.0	29
30	2.00 B	83	9.18				4.74	112	48.8	30
31	2.80 B	77 B	18.8				4.41	101	38.8	31
TOTAL	81.805		429.26	69.88		338.88	147.60		5 497.24	TOTAL

APR				MAY			JUN			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	2.72	80 B	25.7	3.05	45	11.9	1.05	20 B	1.81	1
2	3.55	80	24.5	2.57	24	5.33	1.04	32	1.86	2
3	4.83	508	188	2.37	14	2.87	1.02	33	2.07	3
4	10.1	2 880 B	2 800	2.12	12	2.20	1.07	20	1.85	4
5	7.02	408	247	1.88	14	2.27	1.04	17	1.83	5
6	5.74	80	35.7	1.88	10 B	1.82	0.941	14	1.14	6
7	5.12	87	35.2	1.83	8	1.25	0.931	18	1.28	7
8	4.80	84	37.4	1.73	8	1.20	1.03	33	2.84	8
9	3.81	82	19.3	1.72	10	1.48	1.08	58	5.27	9
10	3.13	80	13.8	2.08	18	2.87	0.974	48 B	4.04	10
11	2.72	37	8.70	2.33	23	4.83	0.932	48	3.82	11
12	2.77	24	5.74	1.98	18	2.84	0.883	42	3.87	12
13	2.87	17 B	3.77	1.81	14 B	2.31	0.824	42	3.43	13
14	2.71	24	5.82	1.70	18	2.84	0.908	47	3.89	14
15	3.08	34	8.88	1.81	23	3.20	0.882	48	3.38	15
16	3.88	27	8.28	2.84	1 420 B	428	0.889	38 B	2.78	16
17	3.48	18	3.87	2.87	172 B	53.1	0.831	38	2.73	17
18	2.81	17	3.83	2.83	111	27.1	0.842	40	2.91	18
19	2.81	18	3.38	2.45	89	18.8	0.838	40	2.88	19
20	2.31	11	2.20	2.37	88	13.3	0.788	39	2.65	20
21	2.38	8 B	1.82	2.48	88	12.3	0.788	43	2.88	21
22	2.36	11	2.17	2.26	84	10.8	1.37	101	12.0	22
23	2.32	7	1.34	2.03	48	8.88	2.24	182 B	37.2	23
24	2.42	10	2.08	1.72	43	8.38	1.84	88	12.8	24
25	2.32	8	1.80	1.51	38	4.78	1.18	85	8.81	25
26	2.30	8	0.88	1.47	31	3.84	0.883	84	8.48	26
27	2.18	4	0.78	1.41	30	3.85	0.878	80	4.88	27
28	2.22	8 B	0.88	1.38	28	3.80	0.841	88	4.07	28
29	2.48	13	2.78	1.38	28	2.70	0.821	82 B	3.88	29
30	3.38	42	12.2	1.20	24	2.48	0.800	48	3.32	30
31				1.13	22	2.18				31
TOTAL	101.88		3 210.27	63.27		889.84	30.843		148.08	TOTAL

B - ICE CONDITIONS

B - SAMPLE(S) COLLECTED THIS DAY

NUMBER RIVER AT ELDER MILLS - STATION NO. 02HC035

SUSPENDED SEDIMENT FOR 1986

DAY	JUL DAILY DISCHARGE (m^3/s)	JUL MEAN CONCENTRATION (mg/L)	JUL DAILY LOAD (t)	AUG DAILY DISCHARGE (m^3/s)	AUG MEAN CONCENTRATION (mg/L)	AUG DAILY LOAD (t)	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	DAY
1	0.628	50	2.56	1.02	28	2.47	0.783	14	0.91	1
2	0.788	51	3.46	0.947	27	2.21	0.712	14 S	0.86	2
3	0.770	47	3.13	0.888	24	1.84	0.731	15	0.89	3
4	0.745	39	2.51	1.01	33	2.88	1.85	123 S	19.8	4
5	0.717	29	1.80	0.921	45	3.58	3.09	144	38.4	5
6	0.687	30 S	1.78	0.844	33 S	2.41	2.52	69	15.5	6
7	0.650	30	1.68	0.747	24	1.68	1.88	30 S	4.84	7
8	0.620	26	1.60	0.704	21	1.28	1.25	39	3.33	8
9	0.624	32	1.73	0.674	21	1.22	1.10	24	2.38	9
10	0.613	33	1.75	0.858	21	1.18	1.01	32	2.79	10
11	0.627	33	1.78	0.842	22	1.32	0.884	23	1.76	11
12	0.605	36	1.88	0.890	54	4.46	0.883	10 S	0.78	12
13	0.837	56	3.19	1.01	47	4.10	0.855	10	0.74	13
14	0.834	69 S	3.74	0.870	33	2.48	0.857	8	0.62	14
15	0.562	56	2.82	0.842	41	2.98	0.836	7	0.50	15
16	0.837	64	3.47	0.733	35	2.22	0.788	9	0.62	16
17	0.782	76 S	5.14	0.806	40 S	2.78	1.72	80 S	13.4	17
18	0.805	74	5.15	0.783	47	3.22	2.03	84	15.8	18
19	0.736	62	3.96	0.748	43	2.77	1.47	48	8.10	19
20	0.648	51	2.84	0.878	32	1.87	1.30	33	3.71	20
21	0.584	44	2.60	0.851	25	1.62	1.28	13	1.65	21
22	0.719	38	2.62	0.838	20	1.10	1.17	11 S	1.11	22
23	0.915	55	4.63	0.852	20	1.13	1.25	12	1.31	23
24	1.30	71	7.97	0.844	44	3.21	1.20	12	1.24	24
25	1.01	38	3.05	0.821	45	3.56	1.05	11	1.00	25
26	0.833	20 S	1.61	1.08	45 S	4.12	0.814	10	0.78	26
27	1.00	30	2.59	1.01	34	2.97	0.848	10	0.82	27
28	1.04	41 S	3.86	0.817	28	2.22	1.33	19	2.03	28
29	0.818	23	1.63	1.03	33	2.84	1.16	14	1.43	29
30	0.639	38	2.10	0.951	18 S	1.48	1.02	15	1.33	30
31	0.881	32	2.71	0.833	13	0.84				31
TOTAL	23.032		81.93	28.009		73.88	37.838		148.88	TOTAL

DAY	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	1.08	20 S	1.63	1.32	18	1.71	1.48	18	2.08	1
2	1.84	86	8.36	1.30	13	1.46	1.44	11	1.37	2
3	2.46	46	10.2	1.27	18	1.78	1.48	10	1.28	3
4	1.80	31 S	4.28	1.28	14	1.55	1.29	8	0.89	4
5	1.58	27	3.69	1.37	21	2.48	1.38	8 S	0.88	5
6	1.43	14 S	1.73	2.50	85	14.0	1.41	13	1.58	6
7	1.26	11	1.18	2.84	41 S	9.35	1.44	15	1.87	7
8	1.19	13	1.34	2.13	19	3.50	1.38	12	1.40	8
9	1.23	14	1.48	2.08	12	2.18	1.10	14	1.33	9
10	1.33	16	1.59	2.53	31	6.78	1.10 S	14	1.44	10
11	1.17	12	1.21	2.84	45	11.4	1.10 S	15	1.80	11
12	1.31	12	1.36	2.23	24	4.82	1.12 S	22	2.13	12
13	1.40	11 S	1.33	2.55	31 S	6.82	1.10 S	15	1.82	13
14	1.38	13	1.56	2.80	83	19.8	1.07 S	10	0.92	14
15	1.31	10	1.13	2.72	38	8.83	1.25 S	11 S	1.15	15
16	1.18	8	0.82	2.22	20	3.84	1.15 S	10 S	1.02	16
17	1.13	10	0.98	1.67	12	1.84	1.15 S	13	1.28	17
18	1.48	21	3.81	1.70	8 S	0.88	1.12 S	10	0.97	18
19	1.62	40	6.53	1.58	8	1.10	1.10 S	8	0.88	19
20	1.48	31	3.88	1.58	15	2.08	1.20 S	10	1.04	20
21	1.34	18	2.08	3.08	43 S	11.4	1.40 S	8 S	0.97	21
22	1.48	28 S	3.13	3.23	68	18.5	1.70 S	15	2.20	22
23	1.53	24	3.17	2.84	28	6.38	2.00 S	13	2.28	23
24	1.58	25	3.58	3.08	13	3.35	1.85 S	14	2.24	24
25	1.61	21	2.82	1.78	6	0.81	1.70 S	13	1.78	25
26	1.60	13 S	1.88	1.58	8	0.87	1.52 S	12	1.58	26
27	1.44	13	1.62	1.53	8	1.27	1.40 S	12	1.46	27
28	1.37	8	1.07	1.52	8 S	1.12	1.70 S	84	12.3	28
29	1.32	13	1.37	1.90	14	1.94	2.50 S	33 S	7.13	29
30	1.34	15	1.74	1.84	14	1.58	2.20 S	14	2.66	30
31	1.32	15	1.82				1.80 S	11	1.71	31
TOTAL	43.88		82.87	82.19		180.84	44.77		83.84	TOTAL

S - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

ONTARIO

HUMBER RIVER AT ELDER MILLS - STATION NO. 02HC035

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)		SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.063	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 03	08:00	0.1	1.48	W	17.0	DH48	18															
JAN 07	13:00	0.1	1.13	W	17.0	DH48	13															
JAN 15	10:05	0.1	0.880	W	17.0	DH48	34															
JAN 16	11:20	0.1	1.80	W	17.0	DH48	98															
JAN 20	13:50	0.1	4.00	W	17.0	DH48	112															
JAN 27	12:00	0.1	3.38	W	17.0	DH48	88															
JAN 31	11:35	0.1	3.80	W	17.0	DH59	92															
FEB 01	12:45	0.1	3.80	W	17.0	DH59	324	339														
FEB 02	11:15	0.1	4.01		17.0	DH48	78															
FEB 11	12:10	0.1	3.30	W	17.0	DH48	31															
FEB 16	11:35		3.30	W	17.0	DH48	110															
FEB 24	13:45	0.1	1.85	W	17.0	DH48	39	343														
MAR 02	14:15	0.1	1.80	W	17.0	DH48	38															
MAR 07	12:30	0.1	2.50	W	17.0	DH48	170															
MAR 08	14:35	0.1	6.00		17.0	DH48	137															
MAR 10	13:10	0.1	8.98		17.0	DH48	385	321														
MAR 15	08:15	0.1	1.98		17.0	DH48	14															
MAR 23	14:00	0.5	2.38		17.0	DH48	188															
MAR 24	07:30	0.1	11.5		17.0	DH59	1030	255														
MAR 25	10:15	0.5	10.7		17.0	DH59	901	285														
MAR 29	14:30	1.5	14.1	W	17.0	DH59	616															
MAR 27	15:05	2.0	10.2		17.0	DH48	674															
APR 01	15:00	6.0	2.82		17.0	DH48	77															
APR 04	09:00	5.0	12.5		17.0	DH48	3420	301														
APR 13	14:00	13.0	2.58		17.0	DH48	16															
APR 21	11:35	7.5	2.30		17.0	DH48	8															
APR 28	10:40	8.5	2.13		17.0	DH48	3															
MAY 06	10:35	15.0	1.87		17.0	DH48	9															
MAY 13	14:10	17.0	1.63		17.0	DH48	13															
MAY 18	08:25	16.0	2.71		17.0	DH48	84															
MAY 16	18:15	11.5	5.43		17.0	DH59	5010	214														
MAY 17	08:50	11.5	3.25		17.0	DH48	138															
JUN 01	10:45	24.0	1.05		17.0	DH48	19															
JUN 10	11:50	25.0	1.01		17.0	DH48	47															
JUN 15	14:30	26.0	0.880		17.0	DH48	38															
JUN 23	13:50	24.0	2.38		17.0	DH48	188	356														
JUN 29	11:10	18.0	0.830		17.0	DH48	52															
JUL 08	13:40	27.0	0.667		17.0	DH48	29															
JUL 14	10:00	25.5	0.848		17.0	DH48	70															
JUL 17	08:30	25.0	0.732		17.0	DH48	78	384														
JUL 25	15:20	23.0	0.890		17.0	DH48	30															
JUL 28	10:05	24.0	1.05		17.0	DH48	48															
AUG 05	11:05	25.0	0.838		17.0	DH48	33	278														
AUG 17	09:45	24.0	0.783		17.0	DH48	24															
AUG 26	13:00	22.0	0.884		17.0	DH48	37															
AUG 30	14:45	21.0	0.848		17.0	DH48	16															
SEP 02	17:20	22.0	0.849		17.0	DH48	12															
SEP 04	08:10	19.0	1.42		17.0	DH48	130	338														
SEP 07	13:40	18.0	1.83		17.0	DH48	27															
SEP 12	13:00	19.0	0.853		17.0	DH48	8															
SEP 17	10:30	16.0	1.13		17.0	DH48	60															
SEP 23	10:40	17.0	1.15		17.0	DH48	10															
OCT 01	08:30	16.0	1.18		17.0	DH48	17															
OCT 04	07:50	12.0	1.43		17.0	DH48	29															
OCT 06	10:30	10.0	1.44		17.0	DH48	13															
OCT 13	11:30	7.0	1.41		17.0	DH48	11															
OCT 22	11:45	7.0	1.49		17.0	DH48	27															
OCT 26	11:30	7.0	1.48		17.0	DH48	13	376														
NOV 07	11:20	7.0	2.05		17.0	DH48	38															
NOV 13	14:05	6.0	2.61		17.0	DH48	33															
NOV 16	14:30	5.0	1.84		17.0	DH48	8															
NOV 21	12:10	4.5	2.58		17.0	DH48	33															
NOV 28	11:15	3.0	1.62		17.0	DH48	8															
DEC 05	12:45	1.0	1.35		17.0	DH48	11															
DEC 15	14:00	0.1	1.30		17.0	DH48	10															
DEC 18	15:45	0.1	1.15	W	17.0	DH48	11															
DEC 21	12:00	1.0	1.45	W	17.0	DH48	7															
DEC 28	16:45	0.5	2.50	W	17.0	DH48	18															

NOTE : SINGLE VERTICAL LOCATED AT 17.0 METRES FOR 1988

DISCHARGE SYMBOL(S): W - DAILY MEAN; ICE CONDITIONS

NUMBER RIVER AT ELDER MILLS - STATION NO. 02HC025

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED MAXIMUM (mg/L)		CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	--CCCCCCCCCC	MANUAL	470	MAR 01	7	MAY 13	288	MAR 01	4 380	---	---	---
1987	CCCCCCCCCCCC	MANUAL	1 850	JUL 08	13	OCT 06	5 000	APR 03	23 600	85.3	85.3	---
1988	CCCCCCCCCCCC	MANUAL	1 330	AUG 23	9	OCT 23	3 430	MAR 18	22 100	80.4	83.8	3.9
1989	CCCCCCCCCCCC	MANUAL	2 280	APR 18	10	JUN 13	4 280	APR 18	24 800	87.3	84.3	3.2
1970	CCCCCCCCCCCC	MANUAL	2 430	MAY 28	8	SEP 23	1 230	APR 05	8 730	33.9	84.2	18.8
1971	CCCCCCCCCCCC	MANUAL	1 800	APR 02	10	NOV 10	2 440	APR 02	12 800	34.2	80.2	17.7
1972	CCCCCCCCCCCC	MANUAL	1 820	APR 11	8	SEP 26	4 420	APR 14	23 600	84.8	83.7	14.8
1973	CCCCCCCCCCCC	MANUAL	2 800	MAR 08	7	OCT 18	4 030	MAR 08	28 100	71.8	88.4	12.8
1974	CCCCCCCCCCCC	MANUAL	2 100	MAY 17	8	OCT 18	5 850	MAR 08	32 100	87.8	89.4	13.3
1975	CCCCCCCCCCCC	MANUAL	3 710	APR 18	8	OCT 10	12 000	APR 18 *	34 100	93.4	83.2	11.8
1976	CCCCCCCCCCCC	MANUAL	3 810	MAR 20	8	OCT 18	7 850	MAR 20	37 400	102	87.1	11.8
1977	CCCCCCCCCCCC	MANUAL	2 170	SEP 26	18	MAR 07	3 350	OCT 02	31 000	84.8	86.7	10.4
1978	CCCCCCCCCCCC	MANUAL	3 320	APR 01	10	OCT 23	8 830	APR 01	38 900 *	108	72.1	10.2
1979	CCCCCCCCCCCC	MANUAL	1 860	MAR 14	10	SEP 10	3 810	MAR 08	32 200	88.3	73.3	8.4
1980	CCCCCCCCCCCC	MANUAL	2 280	APR 18	14	MAR 08	8 280	APR 18	28 100	71.3	73.3	8.7
1981	CCCCCCCCCCCC	MANUAL	804	JUL 08	8	APR 23	4 700	FEB 18	20 000	54.7	71.8	8.4
1982	CCCCCCCCCCCC	MANUAL	2 380	MAR 31	8	OCT 18	7 850	MAR 31	35 200	96.7	73.8	8.0
1983	CCCCCCCCCCCC	MANUAL	1 070	MAY 03	11	NOV 18	1 430	FEB 03	14 800	40.8	71.8	8.2
1984	CCCCCCCCCCCC	MANUAL	2 980	DEC 28	1	NOV 2 *	2 280	FEB 14	18 800	48.1	70.1	8.1
1985	CCCCCCCCCCCC	MANUAL	3 000	APR 5	8	SEP 24	3 830	APR 05	28 800	78.1	70.8	7.8
1988	CCCCCCCCCCCC	MANUAL	5 870	MAR 19 *	7	NOV 8	8 330	MAR 19	38 800	108	72.3	7.8
1987	CCCCCCCCCCCC	MANUAL	2 830	APR 5	7	NOV 5	4 440	APR 05	18 800	48.2	71.1	7.8
1988	CCCCCCCCCCCC	MANUAL	5 010	MAY 18	3	APR 28	2 800	APR 04	10 800	28.8	88.2	7.8

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH * - EXTREME FOR PERIOD OF RECORD

KEMPTVILLE CREEK NEAR KEMPTVILLE - STATION NO. 02LA008

LOCATION: LAT 44 59 38 N LONG 075 38 48 W
DRAINAGE AREA: 408 km²
TYPE OF FLOW: REGULATED SINCE 1961
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MARCH 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 28	13:25		23.7	7.8	D48	30	172														
MAR 29	14:35	3.0	35.3	7.8	D48	7	182														
APR 11	10:25	8.5	15.0	7.8	D48	8	263														
MAY 08	15:05	18.5	5.44	7.8	DH48	8	305														
JUN 30	12:05		1.89	7.8	DH48	8	386														
AUG 18	08:23	24.0	1.05	7.8	DH48	7	288														
SEP 20	08:05	18.0	0.883	7.8	DH48	3	270														
OCT 24	10:45	8.0	2.58	7.8	DH48	3	248														
NOV 23	15:25	1.0	8.03	7.8	DH48	1	238														

NOTE : SINGLE VERTICAL LOCATED AT 7.8 METRES FOR 1988

KEMPTVILLE CREEK NEAR KEMPTVILLE - STATION NO. 02LA008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED MAXIMUM (mg/L)		CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1986	--PP-PP-P-PP	MANUAL	4	MAR 17	1	SEP 23 *	---	---	---	---	---	---
1987	---PP-------	MANUAL	4	APR 8	3	MAY 27	---	---	---	---	---	---
1988	--PPPP-PPPP-	MANUAL	30	MAR 28 *	1	NOV 23	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

KETTLE CREEK AT ST. THOMAS - STATION NO. 02GC002

LOCATION: LAT 42 46 40 N LONG 081 12 02 W
DRAINAGE AREA: 320 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 28	10:30	8.0	8.88	20.0	DH59	218	384														

NOTE : SINGLE VERTICAL LOCATED AT 20 METRES FOR 1988

KETTLE CREEK AT ST. THOMAS - STATION NO. 02GC002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---PPPPP-P--	MANUAL	136 AUG 20		28 MAY 7	*	---	---	---	---	---	---
1986	--P-PPPPPPP-	MANUAL	921 MAR 19	*	6 NOV 6	*	---	---	---	---	---	---
1987	--PPP-P-PP-P	MANUAL	74 JUL 13		16 MAR 16		---	---	---	---	---	---
1988	--P---------	MANUAL	218 MAR 28		218 MAR 28		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

LITTLE PIC RIVER NEAR COLDWELL - STATION NO. 02BA003

LOCATION: LAT 48 50 57 N LONG 088 38 28 W
DRAINAGE AREA: 1 320 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED 1987

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 01	13:30	8.0	50.0	MID	D49	120	172														
JUN 22	10:15	18.0	12.8	MID	D49	37	180														
AUG 24	14:25	18.0	8.35	MID	D49	16	188														
SEP 26	11:00	8.5	16.7	MID	D49	33	158														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

LITTLE PIC RIVER NEAR COLDWELL - STATION NO. 02BA003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1987	---P-P------	MANUAL	102 APR 24		28 JUN 15		---	---	---	---	---	---
1988	----PP-PP---	MANUAL	130 MAY 1	*	16 AUG 24	*	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

LYN CREEK NEAR LYN - STATION NO. 02HB008

LOCATION: LAT 44 21 30 N LONG 075 48 19 W
DRAINAGE AREA: km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED 1987

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 28	14:40	0.1	15.5	MID	D48	88	141														
MAR 28	11:45	1.0	8.20	MID	D48	14	187														
MAY 05	08:50	13.0	1.11	MID	DH48	3	243														
SEP 22	08:15	15.0	0.078	MID	DH48	3	234														
OCT 20	08:00	5.0	0.176	MID	DH48	6	285														
NOV 18	10:15	6.0	3.33	MID	DH48	9	321														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

LYN CREEK NEAR LYN - STATION NO. 02HB008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1987	---P-PP--PP-	MANUAL	6 JUL 23		3 OCT 22	*	---	---	---	---	---	---
1988	--P-P---PPP-	MANUAL	88 MAR 28	*	3 MAY 5		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

LYNDE CREEK NEAR WHITBY - STATION NO. 02HC018

LOCATION: LAT 43 53 32 N LONG 078 57 43 W
DRAINAGE AREA: 106 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MARCH 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 24	11:00	3.0	8.81	3.0	DH59	734	188														
MAR 28	08:00	3.0	5.74	3.0	DH59	780	283														

NOTE : SINGLE VERTICAL LOCATED AT 3.0 METRES FOR 1988

LYNDE CREEK NEAR WHITBY - STATION NO. 02HC015

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1986	--P-P---P---	MANUAL	2 280	MAR 18 *	10	MAY 13 *	---	---	---	---	---	---
1987	---PPPPP-PPP	MANUAL	336	APR 8	14	MAY 21	---	---	---	---	---	---
1988	--P----------	MANUAL	780	MAR 28	734	MAR 24	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

MAD RIVER BELOW AVENING - STATION NO. 02ED015

LOCATION: LAT 44 18 20 N LONG 080 04 11 W
DRAINAGE AREA: 339 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: MANUAL

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.063	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
JUL 08	10:00	20.0	0.770	MID	DH48	14	284														
JUL 28	08:55	22.0	0.560	MID	DH48	4	343														
AUG 24	14:00	21.0	0.478	MID	DH48	6	287														
SEP 27	11:00	13.0	0.633	MID	DH48	7	328														
OCT 24	16:15	8.0	1.81	MID	DH48	15	374														
NOV 28	16:10	6.0	3.08	MID	DH48	21	337														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

MAD RIVER BELOW AVENING - STATION NO. 02ED015

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1988	------PPPPP-	MANUAL	21	NOV 28 *	4	JUL 28 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

MCGREGOR CREEK NEAR CHATHAM - STATION NO. 02GE007

LOCATION: LAT 42 33 00 N LONG 082 05 30 W
DRAINAGE AREA: 302 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 09	07:40		8.00	MID	DH59	301	336														
APR 12	15:00	8.0	0.884	MID	DH59	138	478														
MAY 03	07:20	13.0	0.249	MID	DH59	127	476														
SEP 20	09:50	18.0	0.029	MID	DH48	88	456														
OCT 04	09:30		0.055	MID	DH48	65	567														
NOV 15	14:40	8.0	1.33	MID	DH48	89	780														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

MCGREGOR CREEK NEAR CHATHAM - STATION NO. 02GE007

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)			TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	--CCCPP-PP--	MANUAL	1 830	MAR 19	*	50	APR 1	*	3 480	MAR 19	*	15 000 *	---	---	---
1987	--PPP-PPPPP-	MANUAL	353	NOV 3		65	APR 15		---	---		---	---	---	---
1988	--PPP---PPP-	MANUAL	301	MAR 9		65	OCT 4		---	---		---	---	---	---

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

MISSISSAGI RIVER AT MISSISSAGI CHUTE - STATION NO. 02CC008

LOCATION: LAT 46 12 04 N LONG 083 01 32 W
DRAINAGE AREA: 9 300 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: MANUAL

REMARKS: PROGRAM STARTED 1987

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 14	08:00	1.0	318	64.0	D48	33	182														
SEP 02	07:10	17.0	80.1	64.0	D48	7															

NOTE : SINGLE VERTICAL LOCATED AT 64 METRES FOR 1988

MISSISSAGI RIVER AT MISSISSAGI CHUTE - STATION NO. 02CC006

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED MAXIMUM (mg/L)	CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1987	-------P-PPP	MANUAL	37 AUG 26 *	14 DEC 15	--- ---	---	---	---	---
1988	---P----P---	MANUAL	33 APR 14	7 SEP 2 *	--- ---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

MISSISSIPPI RIVER AT APPLETON - STATION NO. 02KF006

LOCATION: LAT 45 10 35 N LONG 076 07 27 W
DRAINAGE AREA: 3 900 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

REMARKS: DISCONTINUED DEC 31 1985. REACTIVATED JAN 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002 .004 .008 .016 .031 .062 .125 .250 .500 1.00 2.00	PERCENT SAND	SILT	CLAY
APR 05	11:00	3.0	116	MID	D48	5	134				
MAY 03	09:30	8.0	47.3	MID	DH48	3	108				

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

MISSISSIPPI RIVER AT APPLETON - STATION NO. 02KF006

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED MAXIMUM (mg/L)	CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1988	---PP-P--PPP	MANUAL	5 APR 13 *	1 OCT 3 *	--- ---	---	---	---	---
1988	---PP-------	MANUAL	5 APR 5	3 MAY 3	--- ---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

MOOSE RIVER ABOVE MOOSE RIVER - STATION NO. 04LG004

LOCATION: LAT 50 44 38 N LONG 081 27 30 W
DRAINAGE AREA: 80 100 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: MANUAL

REMARKS: REPLACES 04LG002 'MOOSE RIVER AT MOOSE RIVER' EFFECTIVE JAN 01 1983

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002 .004 .008 .016 .031 .062 .125 .250 .500 1.00 2.00	PERCENT SAND	SILT	CLAY
MAY 13	10:30	3.0	3230	180 X	D48	127	276				
AUG 12	19:30		726	180 X	D48	61	172				

NOTE : SINGLE VERTICAL LOCATED AT 320 METRES FOR 1988

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

MOOSE RIVER ABOVE MOOSE RIVER - STATION NO. 04LG004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1978	------P------		20 JUL 06		7 AUG 23	*	---	---	---	---	---	---
1983	----P--P-P-P--	MANUAL	11 MAY 30		11 MAY 30		---	---	---	---	---	---
1984	----P--P-P-P--	MANUAL	78 MAY 10		45 AUG 17		---	---	---	---	---	---
1985	-------P-----	MANUAL	83 AUG 17		83 AUG 17		---	---	---	---	---	---
1986	----P-P------	MANUAL	80 MAY 5		43 JUL 11		---	---	---	---	---	---
1987	----P-P---P-	MANUAL	147 JUL 28	*	57 NOV 5		---	---	---	---	---	---
1988	----P--P-----	MANUAL	127 MAY 13		81 AUG 13		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

NORTH THAMES RIVER NEAR THORNDALE - STATION NO. 02GD015

LOCATION: LAT 43 08 57 N LONG 081 11 30 W
DRAINAGE AREA: 1 340 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 24	17:15	1.0	142	17.0	DH59	133	236														
NOV 22	11:38	8.0	57.2	17.0	DH59	33	477														

NOTE : SINGLE VERTICAL LOCATED AT 17 METRES FOR 1988

NORTH THAMES RIVER NEAR THORNDALE - STATION NO. 02GD015

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---PPPPP-P--	MANUAL	85 AUG 30		8 MAY 8		---	---	---	---	---	---
1986	--P-PPPPPPP-	MANUAL	58 MAY 23		5 OCT 23	*	---	---	---	---	---	---
1987	--PPPPPPPPPP	MANUAL	89 MAR 31		8 APR 28		---	---	---	---	---	---
1988	--P--------P-	MANUAL	123 MAR 24	*	23 NOV 22		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

MOYTAWABASKA RIVER NEAR BAXTER - STATION NO. 02ED003

SUSPENDED SEDIMENT FOR 1985

LOCATION: LAT 44 14 59 N LONG 79 49 20 W
DRAINAGE AREA: 1 180 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

TOTAL SUSPENDED SEDIMENT LOAD 14 800 TONNES FOR THE PERIOD MAR 24 TO DEC 21

REMARKS: OPEN WATER SAMPLING ONLY

MAR				APR				MAY			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)		DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	11.2 S			17.6	28	85.4		13.1	130	138	1
2	10.8 S			16.6	26	37.3		8.97	68	86.8	2
3	11.8 S			17.8	76	118		6.88	28	21.4	3
4	10.7 S			28.6	513	1 720		6.00	17	11.8	4
5	10.5 S			38.3	366	1 310		6.88	12 S	7.13	5
6	11.0 S			28.1	288	848		6.85	11	6.32	6
7	12.0 S			22.6	201 S	382		6.30	14	7.80	7
8	14.0 S			20.4	184	271		6.73	11	6.48	8
9	20.0 S			18.0	118	180		5.81	10	4.78	9
10	27.0 S			15.7	83 S	113		6.82	32 S	19.1	10
11	20.5 S			14.0	88	78.8		7.48	88 S	37.5	11
12	17.0 S			13.1	83	80.0		6.63	28	16.4	12
13	14.8 S			12.4	48	82.8		6.82	14	7.18	13
14	13.2 S			12.3	87 S	82.8		6.48	11	6.18	14
15	12.0 S			13.4	120	138		6.28	8	4.08	15
16	11.0 S			12.8	88	108		8.28	203 E	182	16
17	10.0 S			11.8	81	81.1		18.8	312	808	17
18	9.80 S			11.8	40	38.7		11.8	118	120	18
19	9.00 S			11.8	88	87.1		6.84	88 S	41.8	19
20	8.80 S			10.7	34 S	31.4		8.78	81	46.8	20
21	8.40 S			8.72	31	28.0		8.84	88	83.3	21
22	8.20 S			10.3	47	41.8		11.8	187	181	22
23	11.0 S			8.83	38	32.3		8.81	127	104	23
24	28.0 S	35	84.7	10.8	88	83.1		7.71	85	88.8	24
25	34.8	70	208	10.7	80	74.0		8.38	84	38.1	25
26	80.8	353 E	1 840	8.81	82	82.8		8.82	87	28.7	26
27	82.0	253	1 140	8.33	48 S	35.8		8.21	88	28.2	27
28	28.0	124	311	8.82	82	81.8		4.77	88	23.8	28
29	20.3	83	148	8.82	82	82.8		4.84	87	22.4	28
30	21.2	136	263	12.8	137	148		4.28	80	22.1	30
31	21.3	75	136					3.83	80 S	20.4	31
TOTAL	548.10		3 821.7	488.83		8 118.8		238.18		1 838.10	TOTAL

JUN				JUL				AUG			
DAY	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)		DAILY DISCHARGE (m³/s)	MEAN CONCENTRATION (mg/L)	DAILY LOAD (t)	DAY
1	3.81	81	18.8	2.88	20	4.88		2.72	28 S	8.23	1
2	3.87	81	18.7	2.88	19 S	4.73		2.82	31	8.78	2
3	3.87	48	14.2	2.84	18	3.83		4.88	128	80.7	3
4	3.48	43	13.0	2.88	20	4.88		3.20	74	20.8	4
5	3.38	44	12.7	2.12	33	4.31		2.83	41	8.98	5
6	3.28	82	14.8	1.77	27 S	4.13		2.18	33	8.12	6
7	3.12	33	8.80	1.70	28 S	4.28		2.02	33	8.78	7
8	3.82	48 S	14.4	1.71	31	4.88		1.83	28 S	4.84	8
9	3.88	84	18.8	1.88	33	4.73		1.88	28	8.88	9
10	3.28	38	10.7	1.84	28	8.88		2.01	28	8.04	10
11	3.18	28	7.88	2.01	28 S	8.77		3.30	28 S	8.78	11
12	3.14	28 S	7.08	1.83	28	8.88		2.78	48	10.8	12
13	2.88	22	8.81	1.88	28	3.88		2.88	44	10.1	13
14	2.88	21	4.82	1.78	28	8.80		2.82	87	17.0	14
15	2.88	27	8.88	1.77	28	8.88		2.82	82	13.8	15
16	2.83	48	11.4	1.80	44	8.84		3.08	41	7.40	16
17	2.81	41	8.88	2.07	88	8.84		3.10	147	39.4	17
18	2.81	28	8.84	2.03	88	8.82		3.88	110	33.7	18
19	2.82	25	8.44	1.78	88	8.38		2.84	74	16.2	19
20	2.41	22	4.88	1.82	88 S	7.78		2.30	88	11.8	20
21	2.82	27	8.88	1.88	83	8.48		2.08	42 S	7.88	21
22	3.78	38	12.3	1.78	88	8.07		1.87	28	8.82	22
23	8.00	100	88.1	2.03	88	8.88		1.88	28	8.88	23
24	8.78	80	28.3	2.28	82	10.2		2.30	34 S	8.78	24
25	8.08	28	12.3	2.34	80	10.1		2.88	82 S	11.8	25
26	4.80	23	8.84	2.88	84	21.4		2.84	88	13.8	26
27	2.88	24	7.44	2.88	88 S	14.1		2.81	81	18.3	27
28	3.28	24	8.80	2.71	33	7.73		3.33	77	22.2	28
29	3.19	28	7.17	2.38	28	8.28		2.81	84	14.4	29
30	3.03	20	8.24	2.38	31	4.28		2.48	88	11.7	30
31				2.78	37	8.82		2.33	48	8.88	31
TOTAL	105.88		370.81	88.31		228.88		78.81		412.80	TOTAL

S - ICE CONDITIONS E - ESTIMATED S - SAMPLE(S) COLLECTED THIS DAY

MOTTAWASAGA RIVER NEAR BAXTER - STATION NO. 02ED003

SUSPENDED SEDIMENT FOR 1968

DAY	SEP DAILY DISCHARGE (m^3/s)	SEP MEAN CONCENTRATION (mg/L)	SEP DAILY LOAD (t)	OCT DAILY DISCHARGE (m^3/s)	OCT MEAN CONCENTRATION (mg/L)	OCT DAILY LOAD (t)	NOV DAILY DISCHARGE (m^3/s)	NOV MEAN CONCENTRATION (mg/L)	NOV DAILY LOAD (t)	DAY
1	2.17	36	6.76	2.74	8	2.13	3.86	0 S	0	1
2	2.10	23	4.17	3.36	10 S	2.90	3.86	3	1.03	2
3	2.11	20 S	3.86	6.23	26	11.7	3.86	3	1.02	3
4	4.26	66	20.2	4.62	13	6.41	3.93	4	1.36	4
5	12.6	286	312	4.36	9	3.38	4.13	7	2.80	5
6	9.80	206	173	4.17	9	3.24	6.86	34	19.6	6
7	5.72	72	35.6	3.86	4 S	1.37	7.66	40	27.2	7
8	3.86	41 S	14.0	3.70	5	1.80	6.76	33	13.5	8
9	3.46	36	10.8	3.80	8	2.42	7.66	18	12.3	9
10	3.20	30	8.28	3.36	9	2.63	8.41	47 S	36.2	10
11	3.00	26	8.74	4.42	17	6.61	13.6	117	128	11
12	2.88	21	5.18	6.89	78	46.4	10.0	82	83.6	12
13	3.16	37	10.2	7.90	100	68.3	8.10	34	26.7	13
14	2.82	32	8.07	7.14	84	33.3	13.3	85	81.4	14
15	2.76	31	6.01	7.02	49	29.8	10.4	84	87.6	15
16	2.72	13	3.06	6.66	28	16.4	6.35	40	26.8	16
17	3.14	24 S	6.51	6.56	18 S	9.13	7.24	27	16.9	17
14	3.71	80	18.0	6.66	26	12.3	6.76	32	13.6	18
19	3.47	36	11.4	7.90	68	37.6	6.63	30	11.3	19
20	3.22	23	6.40	8.72	36	22.1	5.80	19	8.89	20
21	3.10	19	5.09	6.56	20	9.64	10.8	121	113	21
22	3.06	18 S	4.76	6.40	11	6.13	12.4	107	118	22
23	3.83	33	10.3	6.53	6	2.87	8.86	47	40.0	23
24	3.86	44	16.0	6.56	8 S	3.84	6.26	21	16.0	24
25	3.67	31	8.86	6.63	10	4.86	7.27	19	8.26	25
26	3.11	18	4.84	6.56	8 S	4.32	6.86	18 S	8.76	26
27	2.88	11 S	2.76	6.06	8	2.83	6.40	13	7.18	27
28	2.84	13	3.19	4.81	7	2.76	6.35	14 S	7.86	28
29	2.89	13	3.26	4.43	8	3.30	6.02	14	7.36	29
30	2.79	10	2.41	4.26	4	1.48	5.76	18	7.46	30
31				4.07	1	0.36				31
TOTAL	111.83		726.29	180.73		388.73	227.42		876.04	TOTAL

DAY	DEC DAILY DISCHARGE (m^3/s)	DEC MEAN CONCENTRATION (mg/L)	DEC DAILY LOAD (t)	DAY
1	5.83	14	6.88	1
2	5.36	10	4.85	2
3	5.06	7	3.06	3
4	4.81	8	3.18	4
5	4.86	12	4.85	5
6	4.73	11 S	4.50	6
7	4.74	11	4.50	7
8	4.81	10	3.96	8
9	4.12 S	11	3.82	9
10	4.00 S	11	3.80	10
11	3.80 S	9	3.03	11
12	3.76 S	8	2.68	12
13	3.80 S	9	2.80	13
14	3.46 S	9	2.68	14
15	3.30 S	7	2.00	15
16	3.20 S	10	2.76	16
17	3.10 S	10	2.86	17
18	3.00 S	8	2.33	18
19	3.00 S	8	2.07	19
20	3.40 S	12	3.53	20
21	4.60 S	23	8.14	21
22	5.30 S			22
23	5.00 S			23
24	5.20 S			24
25	5.30 S			25
26	5.40 S			26
27	5.30 S			27
28	5.00 S			28
29	10.5 S			29
30	5.80 S			30
31	5.30 S			31
TOTAL	155.28		78.77	TOTAL

S - ICE CONDITIONS

S - SAMPLE(S) COLLECTED THIS DAY

MOTTAWASAGA RIVER NEAR BAXTER - STATION NO. 02ED003

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m^3/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 07	15:00	2.0	23.3	15.0	DH59	105	330														
APR 10	14:30	4.5	15.3	15.0	DH59	81	327														
APR 14	09:50	9.0	12.1	15.0	DH59	79															
APR 20	10:30	0.1	10.8	15.0	DH59	35															
APR 27	10:35	8.0	9.20	15.0	DH59	43															
MAY 05	11:00	8.0	8.70	15.0	DH59	13															
MAY 10	14:30	12.0	8.07	15.0	DH59	25															
MAY 11	09:45	9.0	7.88	15.0	DH59	52															
MAY 19	09:30	11.5	6.61	15.0	DH59	56															
MAY 31	15:00	20.5	3.84	15.0	DH59	59															
JUN 08	13:00	18.0	3.38	15.0	DH59	46															
JUN 12	15:45	18.5	3.02	15.0	DH59	27															
JUL 02	15:00	11.0	2.76	15.0	DH59	17	366														
JUL 06	13:30	22.0	1.77	15.0	DH59	28															
JUL 07	20:30		1.87	15.0	DH59	26															
JUL 11	20:30		2.07	15.0	DH59	41															
JUL 20	12:00		1.85	15.0	DH59	56															
JUL 27	20:00		2.01	15.0	DH59	36															
AUG 01	20:00		2.68	15.0	DH59	32															
AUG 08	19:00		1.62	15.0	DH59	30	351														
AUG 11	16:00		2.32	15.0	DH59	32															
AUG 21	14:00	13.0	2.06	15.0	DH59	41															
AUG 24	14:30	15.0	2.22	15.0	DH59	29															
AUG 28	13:30	20.0	2.07	15.0	DH59	51															
SEP 03	15:00	15.0	2.07	15.0	DH59	15															
SEP 06	08:30		4.03	15.0	DH59	42	383														
SEP 17	10:40	10.0	3.05	15.0	DH59	31															
SEP 23	10:45	12.0	3.14	15.0	DH59	15															
SEP 27	14:30	14.0	3.05	15.0	DH59	10															
OCT 02	14:00	11.0	3.50	15.0	DH59	9															
OCT 07	11:40	7.0	3.05	15.0	DH59	3															
OCT 17	10:35	7.5	8.14	15.0	DH59	15	435														
OCT 24	14:50	3.0	5.86	15.0	DH59	8															
OCT 28	12:00	3.0	5.23	15.0	DH59	10															
NOV 01	16:30	0.5	4.50	15.0	DH59	1															
NOV 10	08:50	2.0	8.27	15.0	DH59	31															
NOV 26	12:00	0.1	7.44	15.0	DH59	11															
NOV 28	13:00	1.5	6.33	15.0	DH59	15															
DEC 08	15:30	0.1	5.48	15.0	DH59	10															

NOTE : SINGLE VERTICAL LOCATED AT 15 METRES FOR 1988

MOTTAWASAGA RIVER NEAR BAXTER - STATION NO. 02ED003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : JAN-DEC MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1980	--------P---	MANUAL	32 SEP 10		32 SEP 10		---	---	---	---	---	---
1983	CCCCCCCCCCCC	MANUAL	503 APR 04		2 OCT 18		1 810 MAR 30		37 100	74.3	74.3	---
1984	CCCCCCCCCCCC	MANUAL	898 FEB 16		5 OCT 10		3 820 FEB 17		49 400	135	105	38.9
1985	CCCCCCCCCCCC	MANUAL	1 490 APR 19		1 OCT 30	*	10 800 MAR 29		88 700	191	133	25.3
1986	--CCCCCCCCC-	MANUAL	583 SEP 23		3 NOV 11		3 630 MAR 19		42 300	---	---	---
1987	P-CCCCCCCCC	MANUAL	3 810 MAR 8	*	8 MAY 13		14 900 APR 05	*	73 500	* ---	---	---
1988	--PCCCCCCCP	MANUAL	105 APR 7		1 NOV 1		1 720 APR 06		14 800	---	---	---

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

PARKHILL CREEK ABOVE PARKHILL RESERVOIR - STATION NO. 02FF008

LOCATION: LAT 43 09 40 N LONG 081 37 54 W
DRAINAGE AREA: 110 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 28	13:25	3.0	6.84	10.0	DH59	182	381														
NOV 25	10:45	6.0	3.39	10.0	DH59	33	494														

NOTE : SINGLE VERTICAL LOCATED AT 10 METRES FOR 1988

PARKHILL CREEK ABOVE PARKHILL RESERVOIR - STATION NO. 02FF008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---PPPP-PP--	MANUAL	273	JUL 3	*	37	OCT 30		---	---	---	---	---	---
1986	--PPPPPP-PP-	MANUAL	283	MAR 13		8	NOV 26	*	---	---	---	---	---	---
1987	--PPP--P-PPP	MANUAL	183	APR 13		17	MAY 27		---	---	---	---	---	---
1988	--P--------P-	MANUAL	182	MAR 28		33	NOV 25		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

PIC RIVER NEAR MARATHON - STATION NO. 02BB003

LOCATION: LAT 48 48 38 N LONG 086 17 48 W
DRAINAGE AREA: 4 270 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 12	11:30	8.0	178	33.0	DH59	316	171														
JUN 21	12:00	15.0	99.1	33.0	DH59	63	180														
AUG 25	14:50	15.0	33.9	33.0	DH59	95	208														
SEP 28	17:10	9.5	63.3	33.0	DH59	78	131														

NOTE : SINGLE VERTICAL LOCATED AT 33 METRES FOR 1988

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PIC RIVER NEAR MARATHON - STATION NO. 02BB003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1985	---P--P--P--	MANUAL	2 610	APR 25 *	42	OCT 23	---	---	---	---	---	---
1986	---P--------	MANUAL	670	APR 26	444	APR 26	---	---	---	---	---	---
1987	---P-P------	MANUAL	180	APR 23	20	JUN 16 *	---	---	---	---	---	---
1988	----PP-PP---	MANUAL	316	MAY 12	63	JUN 21	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

PINE RIVER AT LURGAN - STATION NO. 02FD001

LOCATION: LAT 44 09 40 N LONG 081 43 31 W
DRAINAGE AREA: 154 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED IN 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 28	19:05		13.8	0.0	DH59	214	195														

NOTE : SINGLE VERTICAL LOCATED AT 0 METRES FOR 1988

PINE RIVER AT LURGAN - STATION NO. 02FD001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1988	--PPPPP--P--	MANUAL	439	MAR 18 *	33	MAY 13	---	---	---	---	---	---
1987	--PPP-----P-	MANUAL	180	APR 8	18	NOV 3 *	---	---	---	---	---	---
1988	--P---------	MANUAL	214	MAR 28	214	MAR 28	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

RAISIN RIVER NEAR WILLIAMSTOWN - STATION NO. 02MC001

LOCATION: LAT 45 09 18 N LONG 074 36 18 W
DRAINAGE AREA: 404 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: DISCONTINUED DEC 31 1985. REACTIVATED JAN 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 27	10:50	0.5	92.0	0.0	D48	75	220														
MAR 31	11:10	0.5	18.0	0.0	D48	13	170														

NOTE : SINGLE VERTICAL LOCATED AT 0 METRES FOR 1988

RAISIN RIVER NEAR WILLIAMSTOWN - STATION NO. 02MC001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	---PPP-P--PP	MANUAL	30 NOV 13		3 AUG 1 *		---	---	---	---	---	---
1988	--P---------	MANUAL	76 MAR 27 *		12 MAR 31		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

REDHILL CREEK AT HAMILTON - STATION NO. 02HA014

LOCATION: LAT 43 13 56 N LONG 079 47 06 W
DRAINAGE AREA: 60.9 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
FEB 01	10:30	1.0	0.888	4.0	DH48	126	768														
MAR 24	10:40	3.0	0.335	4.0	DH48	47	1320														
OCT 18	08:50	12.0	0.875	4.0	DH48	754	383														

NOTE : SINGLE VERTICAL LOCATED AT 4 METRES FOR 1988

REDHILL CREEK AT HAMILTON - STATION NO. 02HA014

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1985	-PP-P--PP-PP	MANUAL	2 740 MAR 28 *		0 AUG 14 *		---	---	---	---	---	---
1986	--PPP-P----P	MANUAL	243 MAR 11		10 MAY 7		---	---	---	---	---	---
1987	-PPPPPPPPPPP	MANUAL	380 APR 6		3 OCT 20		---	---	---	---	---	---
1988	-PP------P--	MANUAL	754 OCT 18		47 MAR 24		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

RUSCOM RIVER NEAR RUSCOM STATION - STATION NO. 02HG002

LOCATION: LAT 42 13 54 N LONG 082 37 00 W
DRAINAGE AREA: 126 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MAR 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
NOV 15	11:20	7.0	1.20	3.1	DH48	88	788														

NOTE : SINGLE VERTICAL LOCATED AT 3.1 METRES FOR 1988

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RUSCOM RIVER NEAR RUSCOM STATION - STATION NO. 02HN002

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1985	--PPP-P--P--	MANUAL	422 MAR 11	36 OCT 31	--- ---	---	---	---	---
1987	--PPP-P-PPPP	MANUAL	2 020 DEC 15 *	20 MAR 15 *	--- ---	---	---	---	---
1988	----------P-	MANUAL	88 NOV 15	88 NOV 15	--- ---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

SALMON RIVER NEAR SHANNONVILLE - STATION NO. 02HN003

LOCATION: LAT 44 12 38 N LONG 077 12 38 W
DRAINAGE AREA: 881 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. DISSOLVED CONCENT. (mg/L)	SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 27	15:00	3.0	76.3	8.0	DH59	24	158														

NOTE : SINGLE VERTICAL LOCATED AT 8 METRES FOR 1988

SALMON RIVER NEAR SHANNONVILLE - STATION NO. 02HN003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)	SAMPLED CONCENTRATION MINIMUM (mg/L)	SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)	SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1985	-PP-PP--PPPP	MANUAL	28 SEP 11 *	1 DEC 5 *	--- ---	---	---	---	---
1986	P----------	MANUAL	11 JAN 31	11 JAN 31	--- ---	---	---	---	---
1988	--P----------	MANUAL	24 MAR 27	24 MAR 27	--- ---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

SOUTH MAITLAND RIVER AT SUMMERHILL - STATION NO. 02FE009

LOCATION: LAT 43 41 04 N LONG 081 32 35 W
DRAINAGE AREA: 378 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. DISSOLVED CONCENT. (mg/L)	SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 26	13:15	1.0	69.6	28.0	DH59	134	248														
MAY 06	13:00	8.0	1.71	0.0 X	DH48	7	202														

NOTE : SINGLE VERTICAL LOCATED AT 28 METRES FOR 1988

VERTICAL SYMBOL(S): X - NOT AT REGULAR SINGLE SAMPLE VERTICAL

SOUTH MAITLAND RIVER AT SUMMERHILL - STATION NO. 02FB008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : APR-DEC MEAN LOAD (TONNES)	SUMMARY : APR-DEC HISTORICAL MEAN LOAD (TONNES)	SUMMARY : APR-DEC STANDARD ERROR OF MEAN %
1984	--PCCCCCCCCC	MANUAL	178 DEC 30		2 AUG 6	*	2 310 DEC 29		7 310	28.5	28.5	---
1985	CCCCCCCCCCCC	MANUAL	346 APR 5	*	3 AUG 14		2 380 APR 05		21 700	38.2	31.4	15.4
1986	CCCCCCCCCCCC	MANUAL	310 MAR 19		7 JAN 10		2 870 SEP 11	*	28 800	* 69.5	44.1	29.5
1987	P-CCCPPPP-P-	MANUAL	65 AUG 3		5 NOV 3		311 MAR 20		3 220	---	---	---
1988	--P-P-------	MANUAL	124 MAR 28		7 MAY 5		---		---	---	---	---

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

SOUTH NATION RIVER NEAR PLANTAGENET SPRINGS - STATION NO. 02LB008

LOCATION: LAT 45 20 33 N LONG 074 57 20 W
DRAINAGE AREA: 3 810 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

REMARKS: SEASONAL STATION 1988

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING OF VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 05	13:20	8.0	284	20.4	D48	217	335														
MAY 18	13:00	15.0	14.1	20.4	D48	48	433														
AUG 30	12:50	15.0	10.3	20.4	D48	57	384														

NOTE : SINGLE VERTICAL LOCATED AT 20.4 METRES FOR 1988

SOUTH NATION RIVER NEAR PLANTAGENET SPRINGS - STATION NO. 02LB008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MAR-AUG MEAN LOAD (TONNES)	SUMMARY : MAR-AUG HISTORICAL MEAN LOAD (TONNES)	SUMMARY : MAR-AUG STANDARD ERROR OF MEAN %
1972	CCCCCCCCCCCC	DUAL	998 APR 13		14 MAY 17		38 000 APR 18		515 000	2 030	2 030	---
1973	CCCCCCCCCCCC	DUAL	887 MAY 19		18 JAN 02		23 600 MAY 19		209 000	1 800	1 770	15.0
1974	CCCCCCCCCCCC	DUAL	812 APR 08		18 JAN 11		35 600 APR 08		393 000	1 810	1 660	10.4
1975	CCCCCCCCPPPP	DUAL	285 APR 15		4 MAR 25	*	9 280 APR 20		83 500	437	1 370	24.4
1976	CCCCCCCC----	MANUAL	5 880 MAY 31	*	11 MAR 05		157 000 MAY 20	*	838 000	* 2 810	1 880	24.0
1977	P-CCCCP-CCC	MANUAL	147 MAR 17		16 DEC 19		9 840 MAR 17		88 200	---	---	---
1978	CCCCPPPPPPP-	MANUAL	435 APR 13		18 FEB 15		31 400 APR 14		210 000	---	---	---
1979	P-CCCCCCCCC	MANUAL	435 MAR 24		10 JAN 04		20 700 MAR 25		102 000	784	1 830	23.6
1980	--CCCCPPP--	MANUAL	828 APR 10		22 MAR 13		28 800 APR 10		183 000	---	---	---
1981	-PCCCCCPPPP	MANUAL	842 JUN 23		13 MAR 21		47 700 FEB 23		344 000	394	1 370	25.2
1982	CCCCCCCCCCC	MANUAL	654 APR 01		12 JAN 12		31 800 APR 01		335 000	1 010	1 320	22.8
1983	CCCCCCCCCCC	MANUAL	87 APR 10		16 JAN 21		4 750 MAY 03		108 000	429	1 220	23.3
1984	P-CCCCPPP-PP	MANUAL	468 APR 6		10 MAR 18		23 100 APR 06		102 000	---	---	---
1985	--CCCP-P-PP-	MANUAL	418 MAR 14		24 NOV 21		8 880 MAR 15		143 000	---	---	---
1986	--PCCPP-----	MANUAL	308 MAY 21		23 MAR 28		5 330 MAR 30		43 800	---	---	---
1987	--PCCP------	MANUAL	480 MAR 28		35 MAY 12		23 300 MAR 27		119 000	---	---	---
1988	---PP--P----	MANUAL	217 APR 5		45 MAY 19		---		---	---	---	---

DUAL - MANUAL AND AUTOMATIC SAMPLING MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

SYDENHAM RIVER AT FLORENCE - STATION NO. 02EB003

LOCATION: LAT 42 39 00 N LONG 082 00 32 W
DRAINAGE AREA: 1 160 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
APR 12	11:35	8.0	7.75	28.0	DH59	118	386														
MAY 02	14:00		3.14	28.0	DH48	71	370														
AUG 10	10:35	25.0	0.884	28.0	DH48	78	376														
SEP 20	14:35	21.0	0.589	28.0	DH48	47	393														

NOTE : SINGLE VERTICAL LOCATED AT 28 METRES FOR 1988

SYDENHAM RIVER AT FLORENCE - STATION NO. 02EB003

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1986	-PCCCCP-PPP-	MANUAL	518 MAR 30 *		18 NOV 6		4 330 MAR 30 *		32 800 *	---	---	---
1987	--PPPPPPPPPP	MANUAL	113 MAY 22		16 MAR 17 *		--- ---		---	---	---	---
1988	---PP--PP---	MANUAL	118 APR 12		47 SEP 20		--- ---		---	---	---	---

MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

SYDENHAM RIVER NEAR OWEN SOUND - STATION NO. 02FB007

LOCATION: LAT 44 31 21 N LONG 080 55 51 W
DRAINAGE AREA: 181 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MAR 1987

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAR 25	11:50	2.0	16.0	10.0	DH59	20	187														
APR 25	11:15	7.0	3.88	10.0	DH59	3	268														
JUN 01	11:00	20.0	1.35	10.0	DH48	44	278														
JUN 25	09:45	17.0	0.851	10.0	DH48	36	307														
JUL 25	10:45	20.0	1.05	10.0	DH48	35	343														
AUG 25	09:00	17.0	0.606	10.0	DH48	10	298														
SEP 26	10:40	13.0	0.883	10.0	DH48	5	345														
OCT 25	12:55	7.0	3.00	10.0	DH48	5	351														
NOV 29	14:15	4.0	2.91	10.0	DH48	1	292														

NOTE : SINGLE VERTICAL LOCATED AT 10 METRES FOR 1988

SYDENHAM RIVER NEAR OWEN SOUND - STATION NO. 02FB007

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1987	--PPPPP-PPP-	MANUAL	23	SEP 10	6	MAR 17	---	---	---	---	---	---
1988	--PP-PPPPPP-	MANUAL	44	JUN 1 *	1	NOV 28 *	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

THAMES RIVER AT INNERKIP - STATION NO. 02GD021

LOCATION: LAT 43 12 55 N LONG 080 41 24 W
DRAINAGE AREA: 148 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
FEB 01	09:25	2.0	11.3	12.0	DH59	357	288														
MAR 11	09:30	0.1	7.82	12.0	DH48	41	263														
MAR 25	09:10	1.0	8.10	12.0	DH48	37	286														
MAR 28	10:45	4.0	12.3	12.0	DH59	59	361														

NOTE : SINGLE VERTICAL LOCATED AT 12.0 METRES FOR 1988

THAMES RIVER AT INNERKIP - STATION NO. 02GD021

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	SUMMARY : HISTORICAL MEAN LOAD (TONNES)	SUMMARY : STANDARD ERROR OF MEAN %
1984	-P---P--CCCC	DUAL	1 710	FEB 16 *	8	SEP 13	7 810	FEB 14 *	30 200 *	---	---	---
1985	CCCCCCCCCCCC	DUAL	1 020	APR 8	0	DEC 8 *	2 070	APR 06	10 300	28.3	28.3	---
1986	--PPP---P---	MANUAL	308	MAR 19	7	MAY 30	---	---	---	---	---	---
1987	--PPPPPPPPPP	MANUAL	107	APR 8	8	AUG 12	---	---	---	---	---	---
1988	-PP---------	MANUAL	357	FEB 1	27	MAR 28	---	---	---	---	---	---

DUAL - MANUAL AND AUTOMATIC SAMPLING MANUAL - MANUAL SAMPLING

C - COMPLETE MONTH P - PARTIAL MONTH

* - EXTREME FOR PERIOD OF RECORD

TRENT RIVER AT GLEN ROSS - STATION NO. 02HK004

LOCATION: LAT 44 15 50 N LONG 077 38 10 W
DRAINAGE AREA: 13 000 km²
TYPE OF FLOW: REGULATED
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MAR 1967

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
JAN 08	10:10	0.1	200	75.0	DH48	7	188														
JAN 21	09:20	0.3	180	75.0	DH48	3	177														
FEB 08	10:00	0.5	168	75.0	DH48	3	261														
MAR 14	10:30	1.5	132	75.0	DH48	3	197														
MAR 28	17:40	3.0	315	75.0	DH58	17	138														
APR 04	17:00	3.0	368	75.0	DH58	7	130														
MAY 07	11:50	4.0	88.1	75.0	DH48	5	214														
JUN 21	09:30	24.0	23.7	75.0	DH48	3	183														
JUL 13	10:10	22.0	17.0	75.0	DH48	4	233														
AUG 30	09:00	20.0	20.3	75.0	DH48	2	170														
SEP 20	06:55	10.0	15.6	75.0	DH48	3	182														
OCT 11	11:40	11.0	51.0	75.0	DH48	5	231														
NOV 15	09:05		188	75.0	DH58	5	230														
DEC 15	09:00		75.6	75.0	DH58	13															

NOTE : SINGLE VERTICAL LOCATED AT 75 METRES FOR 1988

TRENT RIVER AT GLEN ROSS - STATION NO. 02HK004

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)			MINIMUM (mg/L)			SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1987	--PPPPPPPPPP	MANUAL	18	APR	8	3	DEC	14 *	---	---	---	---	---	---
1988	PPPPPPPPPPPP	MANUAL	17	MAR	28 *	3	AUG	30	---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

TWENTY MILE CREEK AT BALLS FALLS - STATION NO. 02HA008

LOCATION: LAT 43 08 02 N LONG 079 33 00 W
DRAINAGE AREA: 293 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

REMARKS: PROGRAM STARTED MAR 1967

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE SAMPLING VERTICAL (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	SILT	CLAY
MAY 03	15:50	15.0	1.33	5.0	DH48	25	501														
SEP 13	11:15	20.0	0.161	5.0	DH48	5	509														
NOV 08	11:35	10.0	1.76	5.0	DH48	62	666														

NOTE : SINGLE VERTICAL LOCATED AT 5.0 METRES FOR 1988

TWENTY MILE CREEK AT BALLS FALLS - STATION NO. 02HA008

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1987	----P-PP-P--	MANUAL	15 AUG 31		4 MAY 26 *		---	---	---	---	---	---
1988	----P---P-P-	MANUAL	52 NOV 8 *		5 SEP 13		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

WINISK RIVER BELOW ASHEWEIG RIVER TRIBUTARY - STATION NO. 04DC001

LOCATION: LAT 54 31 00 N LONG 087 14 00 W
DRAINAGE AREA: 50 000 km²
TYPE OF FLOW: NATURAL
TYPE OF GAUGE: RECORDING

INSTANTANEOUS SUSPENDED SEDIMENT FOR 1988

DATE	TIME	WATER TEMP. (°C)	INSTANT. DISCHARGE (m³/s)	SINGLE VERTICAL SAMPLING (m)	TYPE OF SAMPLER	INSTANT. CONCENT. (mg/L)	DISSOLVED SOLIDS (mg/L)	PERCENT FINER THAN INDICATED SIZE, IN MILLIMETRES .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	PERCENT SAND	PERCENT SILT	PERCENT CLAY
SEP 26	13:00	9.0	718	MID	D49	18	186														

NOTE : SINGLE VERTICAL LOCATED AT MID (MID STREAM) FOR 1988

WINISK RIVER BELOW ASHEWEIG RIVER TRIBUTARY - STATION NO. 04DC001

HISTORICAL SEDIMENT DATA SUMMARY

YEAR	PERIOD OF OPERATION SUMMARY (JFMAMJJASOND)	TYPE OF SAMPLING	SAMPLED CONCENTRATION MAXIMUM (mg/L)		SAMPLED CONCENTRATION MINIMUM (mg/L)		SUSPENDED SEDIMENT LOAD MAXIMUM DAILY (TONNES)		SUSPENDED SEDIMENT LOAD TOTAL FOR PERIOD (TONNES)	SUMMARY : MEAN LOAD (TONNES)	HISTORICAL MEAN LOAD (TONNES)	STANDARD ERROR OF MEAN %
1975	-----P------	MANUAL	48 JUN 02 *		48 JUN 02		---	---	---	---	---	---
1978	--------P---	MANUAL	12 SEP 26		12 SEP 26		---	---	---	---	---	---
1980	----P-P-----	MANUAL	28 JUL 07		16 MAY 05		---	---	---	---	---	---
1984	----P---P---	MANUAL	7 MAY 31		6 SEP 2 *		---	---	---	---	---	---
1985	-------P-P---	MANUAL	9 JUL 11		7 SEP 30		---	---	---	---	---	---
1987	----P-P-----	MANUAL	18 JUL 14		17 MAY 12		---	---	---	---	---	---
1988	--------P---	MANUAL	18 SEP 26		16 SEP 26		---	---	---	---	---	---

MANUAL - MANUAL SAMPLING

P - PARTIAL MONTH * - EXTREME FOR PERIOD OF RECORD

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02CC006	MISSISSAGI RIVER AT MISSISSAGI CHUTE	31
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02GB007	FAIRCHILD CREEK NEAR BRANTFORD	20
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02GC016	CATFISH CREEK NEAR SPARTA	12
02GC026	BIG OTTER CREEK NEAR CALTON	6
02GD015	NORTH THAMES RIVER NEAR THORNDALE	33
02GD021	THAMES RIVER AT INNERKIP	43
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02HA014	REDHILL CREEK AT HAMILTON	39
02HB002	CREDIT RIVER AT ERINDALE	13
02HC013	HIGHLAND CREEK NEAR WEST HILL	22
02HC016	LYNDE CREEK NEAR WHITBY	28
02HC024	DON RIVER AT TODMORDEN	17
02HC025	HUMBER RIVER AT ELDER MILLS	24
02HC030	ETOBICOKE CREEK BELOW QUEEN ELIZABETH HIGHWAY	20
02HD012	GANARASKA RIVER ABOVE DALE	21
02HK004	TRENT RIVER AT GLEN ROSS	44
02HM003	SALMON RIVER NEAR SHANNONVILLE	40
02KF008	MISSISSIPPI RIVER AT APPLETON	32
02LA008	KEMPTVILLE CREEK NEAR KEMPTVILLE	27
02LB006	SOUTH NATION RIVER NEAR PLANTAGENET SPRINGS	41
02MB006	LYN CREEK NEAR LYN	29
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